Supplementary Material

Forest management with reduced-impact logging in Amazonia: Estimated aboveground volume, biomass and carbon in commercial tree species in managed forest in Brazil's state of Acre

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Table S1 – Means and ranges of DBH for commercial trees by species and class measured in the 100% forest inventory of 1253 ha.

Scientific name	**Class**	**DBH (cm)**		
		Mim	**Máx**	**Mean**
Agonandra silvatica Ducke	Harvested or cut	50.29	111.41	71.98
	Trees in areas of permanent preservation (APPs)	31.19	111.41	59.56
	Future cutting	29.92	49.97	41.29
	Seed trees	50.29	142.92	75.25
Total		**29.92**	**142.92**	**61.85**
Albizia niopoides (Spruce ex Benth.) Burkart	Harvested or cut	51.25	81.81	62.56
	Trees in areas of permanent preservation (APPs)	33.74	90.08	55.31
	Future cutting	32.15	49.66	41.76
	Seed trees	50.29	61.12	53.28
Total		**32.15**	**90.08**	**54.45**
Amburana acreana (Ducke) A.C.Sm.	Harvested or cut	63.66	126.37	78.02
	Trees in areas of permanent preservation (APPs)	30.24	110.14	61.94
	Future cutting	29.92	49.34	41.80
	Seed trees	50.61	144.83	71.54
Total		**29.92**	**144.83**	**66.75**
Andira anthelmia (Vell.) Benth.	Rare trees	54.11	59.84	56.98
Total		**54.11**	**59.84**	**56.98**
Apuleia leiocarpa (Vogel) J.F.Macbr.	Harvested or cut	57.30	142.92	93.99
	Trees in areas of permanent preservation (APPs)	33.42	130.51	79.28
	Future cutting	29.92	49.34	38.83
	Seed trees	50.29	181.44	77.87
Total		**29.92**	**181.44**	**84.36**
Arachis hypogaea L.	Rare trees	36.61	97.08	59.01
Total		**36.61**	**97.08**	**59.01**
Aspidosperma polyneuron Müll.Arg.	Rare trees	63.66	89.13	76.63
Total		**63.66**	**89.13**	**76.63**
Astronium lecointei Ducke	Harvested or cut	50.29	96.45	64.18
	Trees in areas of permanent preservation (APPs)	30.24	98.68	54.57
	Future cutting	31.83	49.66	42.07
	Seed trees	50.29	95.49	58.46
Total		**30.24**	**98.68**	**53.80**
Barnebydendron riedelii (Tul.) J.H.Kirkbr.	Harvested or cut	63.66	114.59	81.62
	Trees in areas of permanent	33.10	111.41	71.72

	preservation (APPs)			
	Future cutting	31.19	49.66	42.21
	Seed trees	50.93	85.94	61.67
Total		**31.19**	**114.59**	**70.60**
Bertholletia excelsa Bonpl.	Protected by law	9.55	31.83	19.93
Total		**9.55**	**31.83**	**19.93**
Bombax L.	Harvested or cut	59.21	121.28	76.93
	Trees in areas of permanent preservation (APPs)	33.74	89.45	56.30
	Future cutting	30.24	49.34	40.41
	Seed trees	50.29	75.44	55.83
Total		**30.24**	**121.28**	**56.59**
Bowdichia virgilioides Kunth	Harvested or cut	59.21	75.44	66.91
	Trees in areas of permanent preservation (APPs)	35.01	66.85	43.85
	Future cutting	29.92	49.34	40.87
	Seed trees	50.29	63.66	54.80
Total		**29.92**	**75.44**	**44.23**
Brosimum Sw.	Harvested or cut	73.53	129.87	89.73
	Trees in areas of permanent preservation (APPs)	29.92	127.32	70.54
	Future cutting	31.19	49.34	42.61
	Seed trees	50.29	162.02	64.46
Total		**29.92**	**162.02**	**71.12**
Buchenavia tetraphylla (Aubl.) R.A.Howard	Harvested or cut	50.93	99.95	69.01
	Trees in areas of permanent preservation (APPs)	18.46	111.41	58.46
	Future cutting	30.56	49.97	42.79
	Seed trees	50.29	99.95	61.17
Total		**18.46**	**111.41**	**57.81**
Calophyllum brasiliense Cambess.	Rare trees	32.15	85.94	50.40
Total		**32.15**	**85.94**	**50.40**
Calycophyllum spruceanum (Benth.) K.Schum.	Harvested or cut	70.03	129.87	86.52
	Trees in areas of permanent preservation (APPs)	33.10	133.69	68.25
	Future cutting	30.24	49.66	43.64
	Seed trees	50.29	129.87	72.89
Total		**30.24**	**133.69**	**72.71**
Cariniana estrellensis (Raddi) Kuntze	Rare trees	44.25	155.97	86.30
Total		**44.25**	**155.97**	**86.30**
Castilla ulei Warb.	Harvested or cut	50.29	122.55	70.42
	Trees in areas of permanent preservation (APPs)	30.24	99.95	59.56
	Future cutting	29.92	49.66	41.26

	Seed trees	50.29	120.96	64.60
Total		**29.92**	**122.55**	**60.72**
Cedrela odorata L.	Harvested or cut	51.25	125.73	74.85
	Trees in areas of permanent preservation (APPs)	30.56	149.92	62.76
	Future cutting	29.92	49.66	39.93
	Seed trees	33.42	149.92	63.99
Total		**29.92**	**149.92**	**61.40**
Ceiba pentandra (L.) Gaertn.	Harvested or cut	95.49	248.28	147.51
	Trees in areas of permanent preservation (APPs)	34.06	238.73	123.36
	Future cutting	35.97	49.66	44.12
	Seed trees	54.11	99.95	75.92
Total		**34.06**	**248.28**	**124.06**
Ceiba samauma (Mart.) K.Schum.	Harvested or cut	50.93	140.06	76.50
	Trees in areas of permanent preservation (APPs)	31.51	139.74	69.89
	Future cutting	31.19	49.66	43.15
	Seed trees	50.29	120.96	70.59
Total		**31.19**	**140.06**	**68.86**
Clarisia Ruiz & Pav.	Harvested or cut	53.48	108.86	68.60
	Trees in areas of permanent preservation (APPs)	30.24	101.86	52.06
	Future cutting	29.92	49.66	39.93
	Seed trees	51.57	79.58	56.12
Total		**29.92**	**108.86**	**50.86**
Copaifera multijuga Hayne	Harvested or cut	69.39	175.07	110.36
	Trees in areas of permanent preservation (APPs)	38.20	159.15	98.78
	Future cutting	35.97	49.02	42.60
	Seed trees	50.61	152.79	72.15
Total		**35.97**	**175.07**	**95.88**
Cordia alliodora (Ruiz & Pav.) Cham.	Rare trees	27.69	97.08	46.85
Total		**27.69**	**97.08**	**46.85**
Couratari macrosperma A.C.Sm.	Harvested or cut	110.14	120.96	117.62
	Trees in areas of permanent preservation (APPs)	30.56	89.13	56.60
	Future cutting	31.19	48.38	38.98
	Seed trees	50.29	105.04	72.52
Total		**30.56**	**120.96**	**62.09**
Crescentia cujete L.	Rare trees	70.03	75.44	72.73
Total		**70.03**	**75.44**	**72.73**
Dialium guianense (Aubl.) Sandwith	Harvested or cut	70.03	79.58	73.09
	Trees in areas of permanent preservation (APPs)	30.88	70.03	48.67

	Future cutting	29.92	49.97	43.21
	Seed trees	50.29	70.03	55.06
Total		**29.92**	**79.58**	**50.51**
Diplotropis purpurea (Rich.) Amshoff	Rare trees	50.93	92.31	66.87
Total		**50.93**	**92.31**	**66.87**
Dipteryx odorata (Aubl.) Willd.	Harvested or cut	67.16	184.62	103.45
	Trees in areas of permanent preservation (APPs)	30.56	149.92	87.60
	Future cutting	12.10	48.70	37.35
	Seed trees	50.29	64.94	58.90
Total		**12.10**	**184.62**	**91.02**
Enterolobium maximum Ducke	Rare trees	32.79	109.82	61.20
Total		**32.79**	**109.82**	**61.20**
Enterolobium schomburgkii (Benth.) Benth.	Rare trees	38.83	111.41	70.79
Total		**38.83**	**111.41**	**70.79**
Erisma Rudge	Rare trees	31.19	120.00	70.25
Total		**31.19**	**120.00**	**70.25**
Erisma uncinatum Warm.	Rare trees	36.29	111.41	73.26
Total		**36.29**	**111.41**	**73.26**
Eschweilera bracteosa (Poepp. ex O.Berg) Miers	Harvested or cut	50.61	114.59	69.81
	Trees in areas of permanent preservation (APPs)	30.24	108.23	58.03
	Future cutting	29.92	49.97	42.07
	Seed trees	50.29	111.41	60.43
Total		**29.92**	**114.59**	**60.92**
Eschweilera grandiflora (Aubl.) Sandwith	Harvested or cut	50.93	124.14	76.49
	Rare trees	58.89	58.89	58.89
	Trees in areas of permanent preservation (APPs)	11.46	130.19	64.66
	Future cutting	29.92	49.66	40.75
	Seed trees	50.29	117.77	63.49
Total		**11.46**	**130.19**	**65.02**
Ficus frondosa Standl	Rare trees	146.42	146.42	146.42
Total		**146.42**	**146.42**	**146.42**
Ficus insipida Willd.	Harvested or cut	62.07	123.50	84.69
	Trees in areas of permanent preservation (APPs)	29.92	129.87	71.67
	Future cutting	29.92	49.34	42.99
	Seed trees	50.29	89.45	61.69
Total		**29.92**	**129.87**	**71.10**
Guarea F.Allam. ex L.	Rare trees	40.11	71.94	51.01
Total		**40.11**	**71.94**	**51.01**
Handroanthus impetiginosus	Harvested or cut	55.07	110.14	68.65

(Mart. ex DC.) Mattos				
	Trees in areas of permanent preservation (APPs)	31.83	92.31	54.76
	Future cutting	30.24	49.66	40.49
	Seed trees	50.29	76.39	54.17
Total		**30.24**	**110.14**	**53.32**
Handroanthus serratifolius (Vahl) S.Grose	Harvested or cut	50.29	93.90	63.85
	Trees in areas of permanent preservation (APPs)	29.92	98.68	53.24
	Future cutting	30.24	49.66	41.36
	Seed trees	50.29	117.77	62.35
Total		**29.92**	**117.77**	**53.66**
Hevea brasiliensis (Willd. ex A.Juss.) Müll.Arg.	Protected by law	9.55	31.83	18.36
Total		**9.55**	**31.83**	**18.36**
Hura crepitans L.	Harvested or cut	55.39	200.54	103.64
	Trees in areas of permanent preservation (APPs)	32.79	229.18	85.06
	Future cutting	30.24	49.34	40.41
	Seed trees	50.29	232.37	80.97
Total		**30.24**	**232.37**	**86.55**
Hymenaea courbaril L.	Harvested or cut	65.89	165.52	94.28
	Trees in areas of permanent preservation (APPs)	29.92	127.32	83.40
	Future cutting	30.24	47.11	41.17
	Seed trees	50.93	98.04	62.37
Total		**29.92**	**165.52**	**86.14**
Hymenaea oblongifolia Huber	Harvested or cut	62.07	105.04	78.66
	Trees in areas of permanent preservation (APPs)	34.70	95.49	60.03
	Future cutting	30.88	49.97	40.89
	Seed trees	50.29	73.21	58.80
Total		**30.88**	**105.04**	**58.57**
Hymenolobium Benth	Rare trees	29.92	83.08	51.52
Total		**29.92**	**83.08**	**51.52**
Hymenolobium excelsum Ducke	Harvested or cut	54.11	98.68	72.08
	Trees in areas of permanent preservation (APPs)	31.19	85.94	58.57
	Future cutting	31.83	49.66	42.56
	Seed trees	50.61	75.44	57.83
Total		**31.19**	**98.68**	**56.43**
Jacaranda copaia (Aubl.) D.Don	Harvested or cut	50.93	87.85	64.09
	Trees in areas of permanent preservation (APPs)	30.24	85.94	52.93
	Future cutting	29.92	49.97	41.37
	Seed trees	50.29	76.39	57.93

Total		**29.92**	**87.85**	**53.09**
Lantana camara L.	Rare trees	35.01	46.47	41.14
Total		**35.01**	**46.47**	**41.14**
Manilkara amazonica (Huber) Standl.	Rare trees	37.56	94.86	57.40
Total		**37.56**	**94.86**	**57.40**
Manilkara bidentata subsp. surinamensis (Miq.) T.D.Penn.	Rare trees	36.61	120.96	66.66
Total		**36.61**	**120.96**	**66.66**
Martiodendron elatum (Ducke) Gleason	Harvested or cut	50.93	79.58	65.68
	Trees in areas of permanent preservation (APPs)	35.01	82.12	50.59
	Future cutting	34.06	49.66	42.73
	Seed trees	50.29	73.21	55.95
Total		**34.06**	**82.12**	**50.52**
Matisia cordata Kunth	Rare trees	46.79	95.49	59.97
Total		**46.79**	**95.49**	**59.97**
Mezilaurus Taub.	Rare trees	30.56	90.72	51.03
Total		**30.56**	**90.72**	**51.03**
Micropholis (Griseb.) Pierre	Harvested or cut	123.50	152.79	133.80
	Trees in areas of permanent preservation (APPs)	38.20	129.87	78.91
	Future cutting	32.47	37.24	35.54
	Seed trees	54.11	129.87	87.63
Total		**32.47**	**152.79**	**89.24**
Micropholis sp.	Rare trees	30.24	79.58	47.61
Total		**30.24**	**79.58**	**47.61**
Myroxylon balsamum (L.) Harms	Harvested or cut	79.58	81.49	80.53
	Trees in areas of permanent preservation (APPs)	31.83	78.94	48.92
	Future cutting	29.92	49.34	40.84
	Seed trees	50.93	73.21	59.52
Total		**29.92**	**81.49**	**50.25**
Ochroma pyramidale (Cav. ex Lam.) Urb	Rare trees	32.79	73.21	53.56
Total		**32.79**	**73.21**	**53.56**
Ocotea amazonica (Meisn.) Mez	Rare trees	32.79	90.40	49.66
Total		**32.79**	**90.40**	**49.66**
Ocotea Aubl.	Rare trees	30.24	77.03	47.95
Total		**30.24**	**77.03**	**47.95**
Ormosia flava (Ducke) Rudd	Trees in areas of permanent preservation (APPs)	35.01	89.13	59.59
	Future cutting	34.38	48.06	42.13
	Seed trees	50.29	110.77	63.60
Total		**34.38**	**110.77**	**55.37**
Parkia paraensis Ducke	Harvested or cut	50.93	197.35	81.89

	Trees in areas of permanent preservation (APPs)	29.92	133.69	63.95
	Future cutting	30.24	49.34	40.02
	Seed trees	50.29	110.14	62.21
Total		**29.92**	**197.35**	**66.73**
Planchonella Pachycarpa Pires	Harvested or cut	70.66	127.32	107.27
	Trees in areas of permanent preservation (APPs)	58.25	111.41	76.89
	Future cutting	30.24	46.47	40.36
	Seed trees	50.29	101.86	79.12
Total		**30.24**	**127.32**	**76.87**
Pouteria caimito (Ruiz & Pav.) Radlk	Harvested or cut	62.71	85.94	74.17
	Trees in areas of permanent preservation (APPs)	30.56	111.41	60.75
	Future cutting	29.92	49.97	41.21
	Seed trees	50.29	120.96	64.19
Total		**29.92**	**120.96**	**55.21**
Pouteria pachycarpa	Rare trees	30.24	85.94	45.25
Total		**30.24**	**85.94**	**45.25**
Protium heptaphyllum (Aubl.) Marchand	Rare trees	40.43	42.65	41.54
Total		**40.43**	**42.65**	**41.54**
Qualea grandiflora Mart.	Harvested or cut	56.98	89.45	72.30
	Trees in areas of permanent preservation (APPs)	47.75	79.58	62.03
	Future cutting	29.92	48.38	42.21
	Seed trees	39.79	108.23	59.24
Total		**29.92**	**108.23**	**56.03**
Qualea tessmannii Mildbr.	Harvested or cut	63.66	108.23	81.57
	Trees in areas of permanent preservation (APPs)	30.88	105.04	61.73
	Future cutting	31.19	46.15	37.47
	Seed trees	53.48	127.32	69.96
Total		**30.88**	**127.32**	**66.06**
Rheedia brasiliensis (Mart.) Planch. & Triana	Rare trees	56.98	113.00	78.62
Total		**56.98**	**113.00**	**78.62**
Schizolobium parahyba var. amazonicum (Huber ex Ducke) Barneby	Harvested or cut	50.61	105.36	62.14
	Trees in areas of permanent preservation (APPs)	30.24	95.49	57.46
	Future cutting	29.92	49.66	42.43
	Seed trees	50.29	98.68	60.29
Total		**29.92**	**105.36**	**55.52**
Sebastiania Spreng.	Harvested or cut	79.58	79.58	79.58
	Trees in areas of permanent	29.92	81.17	53.95

	preservation (APPs)			
	Future cutting	31.83	47.75	40.38
	Seed trees	50.29	75.44	59.24
Total		**29.92**	**81.17**	**53.81**
Spondias L.	Trees in areas of permanent preservation (APPs)	42.02	42.02	42.02
Total		**42.02**	**42.02**	**42.02**
Sterculia apetala (Jacq.) H.Karst.	Harvested or cut	50.61	85.94	65.45
	Trees in areas of permanent preservation (APPs)	30.24	120.96	52.85
	Future cutting	30.24	49.66	41.72
	Seed trees	50.29	86.26	59.36
Total		**30.24**	**120.96**	**53.37**
Swietenia macrophylla King	Protected by law	32.79	141.97	74.54
Total		**32.79**	**141.97**	**74.54**
Terminalia amazonia (J.F.Gmel.) Exell	Rare trees	39.47	105.04	68.87
Total		**39.47**	**105.04**	**68.87**
Terminalia L.	Trees in areas of permanent preservation (APPs)	41.38	99.95	68.16
	Future cutting	38.20	45.84	40.96
	Seed trees	50.29	99.95	69.89
Total		**38.20**	**99.95**	**67.36**
Tovomita amazonica (Poepp.) Walp.	Rare trees	35.01	99.95	70.25
Total		**35.01**	**99.95**	**70.25**
Trichilia maynasiana C.DC	Harvested or cut	52.20	76.39	61.73
	Trees in areas of permanent preservation (APPs)	29.92	75.76	48.69
	Future cutting	30.24	49.34	40.31
	Seed trees	50.29	75.76	54.49
Total		**29.92**	**76.39**	**47.46**
Vatairea sericea (Ducke) Ducke	Rare trees	33.74	90.40	62.07
Total		**33.74**	**90.40**	**62.07**
Virola sebifera Aubl.	Harvested or cut	79.58	85.94	81.81
	Trees in areas of permanent preservation (APPs)	32.47	82.76	51.05
	Future cutting	32.79	49.97	42.60
	Seed trees	50.29	79.58	62.39
Total		**32.47**	**85.94**	**51.99**
Zanthoxylum rhoifolium Lam.	Harvested or cut	78.94	111.41	93.32
	Trees in areas of permanent preservation (APPs)	40.74	95.49	66.42
	Future cutting	39.15	47.43	43.10
	Seed trees	57.30	79.58	69.53
Total		**39.15**	**111.41**	**71.21**
Grand Total		**9.55**	**248.28**	**61.18**

Table S2 – Basic wood density, and estimated aboveground volume biomass and carbon (stump, commercial bole and crown) of trees (DBH ≥ 50 cm) harvested in 1253 ha.

Scientific name	**Basic wood density ($g\ cm^{-3}$)**	**Volume ($m^3\ ha^{-1}$)**	**Biomass ($Mg\ ha^{-1}$)**	**Carbon ($MgC\ ha^{-1}$)**
Agonandra silvatica Ducke	0.561	0.2981	0.1798	0.0845
Albizia niopoides (Spruce ex Benth.) Burkart	0.638	0.4798	0.3332	0.1566
Amburana acreana (Ducke) A.C.Sm.	0.625	0.3193	0.2085	0.0980
Apuleia leiocarpa (Vogel) J.F.Macbr.	0.625	2.2787	1.7724	0.8330
Astronium lecointei Ducke	0.766	0.6123	0.5287	0.2485
Barnebydendron riedelii (Tul.) J.H.Kirkbr.	0.625	0.7571	0.4457	0.2095
Bombax L.	0.561	0.3235	0.1305	0.0613
Bowdichia virgilioides Kunth	0.818	0.0311	0.0208	0.0098
Brosimum Sw.	0.571	0.4643	0.1803	0.0848
Buchenavia tetraphylla (Aubl.) R.A.Howard	0.692	0.7941	0.5899	0.2773
Calycophyllum spruceanum (Benth.) K.Schum.	0.391	0.4617	0.2657	0.1249
Castilla ulei Warb.	0.625	2.9041	1.2790	0.6012
Cedrela odorata L.	0.380	0.7979	0.3603	0.1693
Ceiba pentandra (L.) Gaertn.	0.691	2.7467	0.7329	0.3445
Ceiba samauma (Mart.) K.Schum.	0.561	2.1125	1.1391	0.5354

Clarisia Ruiz & Pav.	0.561	0.3376	0.1380	0.0649
Copaifera multijuga Hayne	0.561	1.2872	0.6697	0.3147
Couratari macrosperma A.C.Sm.	0.407	0.0960	0.0519	0.0244
Dialium guianense (Aubl.) Sandwith	0.425	0.0673	0.0439	0.0206
Dipteryx odorata (Aubl.) Willd.	0.619	2.5352	2.0130	0.9461
Eschweilera bracteosa (Poepp. ex O.Berg) Miers	0.288	1.5709	1.0753	0.5054
Eschweilera grandiflora (Aubl.) Sandwith	0.505	1.7877	1.3412	0.6303
Ficus insipida Willd.	0.380	0.5837	0.2162	0.1016
Handroanthus impetiginosus (Mart. ex DC.) Mattos	0.519	0.3028	0.2616	0.1229
Handroanthus serratifolius (Vahl) S.Grose	0.561	0.7656	0.6708	0.3153
Hura crepitans L.	0.561	1.1057	0.4071	0.1913
Hymenaea courbaril L.	0.825	1.5988	1.2112	0.5693
Hymenaea oblongifolia Huber	0.625	0.2390	0.1544	0.0726
Hymenolobium excelsum Ducke	0.625	0.1794	0.1171	0.0550
Jacaranda copaia (Aubl.) D.Don	0.805	0.4087	0.3610	0.1697
Martiodendron elatum (Ducke) Gleason	0.625	0.0900	0.0627	0.0294
Micropholis (Griseb.) Pierre	0.625	0.2385	0.1288	0.0606
Myroxylon balsamum (L.) Harms	0.561	0.0203	0.0131	0.0061

Parkia paraensis Ducke	0.561	2.9130	1.3956	0.6559
Planchonella Pachycarpa Pires	0.653	0.0692	0.0384	0.0181
Pouteria caimito (Ruiz & Pav.) Radlk	0.732	0.0598	0.0356	0.0167
Qualea grandiflora Mart.	0.380	0.0540	0.0318	0.0150
Qualea tessmannii Mildbr.	0.353	0.2658	0.1533	0.0720
Schizolobium parahyba var. amazonicum (Huber ex Ducke) Barneby	0.425	1.2047	0.6213	0.2920
Sebastiania Spreng.	0.825	0.0106	0.0039	0.0018
Sterculia apetala (Jacq.) H.Karst.	0.825	0.6542	0.2638	0.1240
Trichilia maynasiana C.DC	0.361	0.2254	0.1022	0.0480
Virola sebifera Aubl.	0.361	0.0331	0.0190	0.0089
Zanthoxylum rhoifolium Lam.	0.760	0.1294	0.0745	0.0350
Total	**0.578**	**34.2151**	**19.8429**	**9.3262**

Table S3. Numbers of individuals measured in the 100% inventory by class and diameter range in a 1253-ha forest-management area in Acre.

Class	**Center point of the Diameter range (cm)**																								
	5	**15**	**25**	**35**	**45**	**55**	**65**	**75**	**85**	**95**	**105**	**115**	**125**	**135**	**145**	**155**	**165**	**175**	**185**	**195**	**205**	**215**	**225**	**235**	**245**	**Total Geral**
Future cutting		1	28	943	1616																					2588
Harvested or cut						756	738	1072	352	310	110	164	106	50	28	5	9	7	8	8	2	2	3	2	1	3733
Protected by law	428			317	3	3	3	4	2	2	2		1	1	1											767
Rare trees			2	104	159	116	70	73	22	20	5	10	3	1	1	1										587
Seed trees				6	6	1000	317	314	89	98	11	32	14		6	2	2		2					1		1900
Trees in areas of permanent preservation (APPs)		2	9	355	623	680	400	580	172	141	39	86	42	30	18	10	11	6	2	3	1	2	4	3		3219
Total	**428**	**3**	**39**	**1725**	**2407**	**2555**	**1528**	**2043**	**637**	**571**	**167**	**292**	**166**	**82**	**54**	**18**	**22**	**13**	**12**	**11**	**3**	**4**	**7**	**6**	**1**	**12794**

Table S4. Biomass inferred from previous studies in the southwestern portion of the Brazilian Amazon for trees of all species with DBH ≥ 10 cm.

Variable	**Mean**	**References**
Biomass	319.59 ± 71.48 Mg ha^{-1}	Brown et al., 1995 (≈285 Mg ha^{-1}) [1] , 2009 (≈426 Mg ha^{-1}) [2]; d`Oliveira et al., 2012 (≈231.7 Mg ha^{-1}) [3]; Salimon et al., 2011(≈246 Mg ha^{-1}) [4]; Brazil, SFB, 2014 (≈333.35 Mg ha^{-1}) [5]

Table S5. Aboveground biomass of commercial trees by category and class for felling and maintenance of the 81 species measured in an area of 1253 ha in the state of Acre, Brazil.

Category	**Class**	**N**	**DBH (cm)**	**DA**	**B**	**rB**
Remaining trees	Trees in areas of permanent preservation (APPs)	3,219	11.46 - 238.73	2.57	11.71	26.63
	Protected by law	767	10.00 - 141.97	0.61	0.31	0.70
	Seed trees	1,872	39.79 - 232.37	1.49	6.53	14.85
	Rare trees	615	27.69 - 155.97	0.49	1.80	4.09
	Future cutting	2,588	12.10 - 49.97	2.07	3.77	8.57
Subtotal					24.12	54.84
Harvested trees	Harvested or cut	3,733	50.29 - 248.28	2.98	19.84	45.16
Total		12,794	10.00 - 248.28	10.21	43.96	100.00

Number of trees sampled by species per class (N), number of individuals per hectare (DA; n ha^{-1}), biomass (B; Mg ha^{-1}). These values include the crown and the first 30 cm of the trunk that corresponds to the stump if harvested. The relative percentage refers to the percentage of the total stock (the column total) that is represented by each class:, rB = Relative percentage of biomass for each class

Table S6. Biomass stock in the commercial boles, crowns and stumps of trees of commercial species (DBH ≥ 50 cm) harvested in 1253 ha.

Tree part	**Biomass**		
	Mg	Mg ha^{-1}	Mg ha^{-1} year^{-1}
Commercial bole*	13,923.39	11.11*	0.32
Subtotal		11.11*	0.32
Crown	10,613.	8.47	0.24
Stump	326.74	0.26	0.01
Subtotal		8.73	0.25
Total	24,863.21	19.84	0.57

* "Commercial bole" (ET) refers to the harvested portion of the trunk (from the 30-cm stump cut to the first significant branch).

Table S7. Biomass stock for forest in the study area extrapolated from the literature and for the trunks of harvested trees that are removed from the management system.

Study	BTE (Mg ha^{-1}) (DBH ≥ 10 cm)	BTS (%) (DBH ≥ 10 cm)	BTT(%) (DBH ≥ 50 cm)
Brazil, SFB (2014) [5]	333.25	13.19	3.33
Brown et al. (1995) [1]	285	15.42	3.90
Brown et al. (2009) [2]	426	10.32	2.61
Salimon et al. (2011) [4]	322	13.65	3.45
D`Oliveira et al. (2012) [3]	231.7	18.97	4.79
Mean	319.59	13.76	3.48

Where: BTE = Biomass stock of all species based on previous studies in the southwestern portion of the Brazilian Amazon (DBH ≥ 10 cm); BTS = Percentage of total biomass (DBH ≥ 10 cm) B = Biomass (43.96 Mg ha^{-1}; Table 4) of commercial species in relation to *BTE* [B × 100% / *BTE*]; BTT = Percentage of the biomass of harvested commercial boles (DBH ≥ 50 cm) (ET = 11.11 Mg ha^{-1}; Table 6) of the commercial species in relation to *BTE* [ET × 100% / *BTE*]; B = Total biomass; ET = Commercial bole.

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