

**Supplementary Table S1. Effect of tree-based land-use systems on SOC (Mg ha<sup>-1</sup>) at different soil depths**

<b>Tree-based land-use system</b>	<b>0-20 cm</b>	<b>20-40 cm</b>	<b>40-60 cm</b>	<b>Mean</b>
<b>Forest</b>				
<i>Lagerstroemia parviflora</i>	40.88±0.91	39.99±0.96	32.90±0.81	37.92b
<i>Michelia champaca</i>	40.12±1.01	36.95±1.07	31.66±1.02	36.24cd
<i>Tectona grandis</i>	39.52±0.59	35.74±0.76	30.25±0.65	35.17de
<i>Shorea robusta</i>	41.17±1.15	40.18±0.48	29.48±0.61	36.94bc
Mixed	47.06±1.14	47.13±1.90	32.48±1.33	42.22a
<b>Forest Tree Plantation</b>				
<i>Swietenia macrophylla</i>	23.55±0.40	21.58±1.36	19.45±0.95	21.53gh
<i>Anthocephalus cadamba</i>	23.78±0.38	20.49±0.55	19.37±0.29	21.21ghi
<i>Gmelina arborea</i>	22.95±0.64	19.06±1.29	17.99±0.74	20.00hijkl
<i>Shorea borneensis</i>	23.01±0.94	19.66±0.44	17.36±0.39	20.01hijkl
<i>Tectona grandis</i>	23.33±1.86	19.55±0.53	18.62±0.73	20.50ghijkl
<i>Lagerstroemia indica</i>	23.47±1.35	19.96±0.30	17.03±0.60	20.16hijkl
<i>Tectona grandis</i> + <i>Milvus migrans</i>	23.45±1.21	18.96±0.32	17.58±1.02	20.00hijkl
A c + S m	23.05±1.51	19.71±0.64	17.32±0.62	20.03hijkl
<b>Agroforestry</b>				
<i>Albizia lebbek</i> based	24.56±0.95	20.63±0.47	16.66±0.71	20.62ghijkl
<i>Swietenia macrophylla</i> based	25.77±0.69	19.35±0.38	17.37±0.58	20.83ghijk
<i>Terminalia arjuna</i> based	24.56±0.65	19.48±0.32	16.54±0.39	20.19hijkl
<i>Gmelina arborea</i> based	25.23±1.50	19.77±0.45	16.91±0.67	20.64ghijkl
<i>Millettia pinnata</i> based	23.26±1.11	19.45±0.24	18.31±0.10	20.34ghijkl
<i>Lagerstroemia indica</i> based	25.83±0.95	20.69±0.19	18.92±0.29	20.81g
<i>Anthocephalus cadamba</i> based	24.02±1.30	19.26±0.96	18.66±0.70	20.65hijkl
<i>Mangifera indica</i> based	24.22±1.25	19.63±0.39	17.06±0.71	20.30ghijkl
Homegarden	34.98±1.18	28.23±1.44	27.13±0.71	30.11f
<b>Commercial Crop Plantation</b>				
<i>Hevea brasiliensis</i>	24.27±1.45	19.27±0.86	16.51±0.88	20.02hijkl
<i>Cocos nucifera</i>	24.67±0.37	18.82±0.56	17.32±0.63	20.27hijkl
<i>Areca catechu</i>	25.54±0.67	19.73±0.38	18.32±0.50	21.20ghi
<i>Machilus bombycina</i>	24.53±1.16	19.95±0.25	18.77±0.15	21.08ghij
Tea plantations	39.93±1.26	33.57±0.92	29.69±0.44	34.40e
<b>Fruit Orchard</b>				
<i>Psidium guajava</i>	24.28±0.58	18.81±1.07	16.32±0.58	19.80ijkl
<i>Manilkara zapota</i>	24.02±0.85	18.28±0.68	17.74±1.21	20.01hijkl
<i>Litchi chinensis</i>	23.82±0.61	18.31±0.63	15.33±0.53	19.15l
<i>Anacardium occidentale</i>	23.61±0.55	18.45±0.51	16.65±0.45	19.57jkl
<i>Citrus lemon</i>	22.55±1.13	18.90±0.87	16.18±1.17	19.2ll
<i>Mangifera indica</i>	23.56±0.55	18.15±0.73	16.60±0.59	19.44kl
Mean	27.53a	23.26b	20.26c	

A c + S m- *Anthocephalus cadamba* + *Swietenia macrophylla*

**Supplementary Table S2. Effect of tree-based land-use systems on biomass accumulation and partitioning (Mg ha<sup>-1</sup>)**

TBL	Biomass			TSB	AGB	BGB	LB	TB
	Tree	Shrub	Herb					
Forest								
L p	130.36 *(2.12)c	11.39 (1.1)c	3.22 (0.62)c	144.97 (2.16)c	126.06 (2.10)c	18.91 (1.30)c	14.10 (1.17)a	159.07 (2.21)c
M c	139.68 (2.15)c	10.54 (1.1)c	4.13 (0.71)b	154.36 (2.19)c	134.23 (2.13)c	20.13 (1.33)c	9.35 (1.01)b	168.84 (2.22)c
T g	140.70 (2.15)c	10.19 (1.1)c	3.39 (0.64)c	154.29 (2.19)c	134.16 (2.13)c	20.12 (1.33)c	14.48 (1.19)a	163.64 (2.23)c
S r	256.02 (2.41)b	7.44 (0.9)d	2.81 (0.6)cd	266.26 (2.43)b	231.53 (2.37)b	34.73 (1.55)b	12.43 (1.13)a	278.69 (2.45)b
Mixed	743.19 (2.87)a	17.80 (1.3)b	6.62 (0.88)a	767.61 (2.88)a	667.49 (2.82)a	100.12 (2.00)a	13.60 (1.16)a	781.21 (2.89)a
Forest Tree Plantation								
S m	39.13 (1.60)h	2.06 (0.5)g	0.93 (0.3)gh	42.12 (1.64)h	36.63 (1.58)h	5.49 (0.82)g	3.58 (0.66)d	45.70 (1.68)i
A c	58.28 (1.77)f	0.90 (0.5)jkl	1.16 (0.33)g	60.34 (1.79)g	52.47 (1.73)g	7.87 (0.95)f	3.51 (0.65)a	63.85 (1.8)gh
G a	27.36 (1.45)ij	1.54 (0.3)hi	0.91 (0.3)gh	29.82 (1.49)i	25.93 (1.43)i	3.89 (0.69)h	2.32 (0.52)e	32.14 (1.52)j
S b	27.60 (1.45)ij	1.97 (0.5)gh	0.86 (0.3)gh	30.44 (1.49)i	26.47 (1.44)i	3.97 (0.69)h	1.73 (0.43)f	32.17 (1.52)j
T g	22.65 (1.4)jkl	1.89 (0.3)gh	0.91 (0.3)gh	25.44 (1.42)ij	22.12 (1.36)ij	3.32 (0.6)hij	0.97 (0.1)gh	26.41 (1.4)jkl
L i	39.04 (1.60)h	1.55 (0.4)hi	2.35 (0.3)de	42.95 (1.63)h	37.34 (1.57)h	5.60 (0.81)g	4.53 (0.44)c	47.47 (1.67)i
Tg+Mm	82.21 (1.92)e	1.18 (0.34)ij	0.84 (0.26)h	84.23 (1.9)ef	73.25 (1.87)ef	10.99 (1.08)e	1.74 (0.44)f	85.97 (1.9)ef
Ac+Sm	103.36 (2.02)d	5.54 (0.81)e	2.11 (0.49)e	111.56 (2.05)d	97.01 (1.99)d	14.55 (1.19)d	0.30 (0.11)i	111.86 (2.05)d
Agroforestry								
A l b	17.66 (1.3)mn	0.80 (0.25)kl	0.04 (0.02)k	18.49 (1.29)l	16.08 (1.23)l	2.41 (0.53)kl	0.06 (0.03)jk	18.56 (1.29)h
S m b	79.44 (1.90)e	1.31 (0.47)i	0.06 (0.27)k	80.81 (1.9)ef	70.27 (1.85)ef	10.54 (1.06)e	3.01 (0.60)d	83.82 (1.9)ef
T a b	25.52 (1.4)ijk	0.50 (0.2)mn	0.12 (0.05)k	26.14 (1.43)ij	22.73 (1.37)ij	3.41 (0.64)hi	0.02 (0.01)k	26.15 (1.4)kl
G a b	28.30 (1.47)i	1.95 (0.36)gh	0.50 (0.11)i	30.75 (1.50)i	26.74 (1.44)i	4.01 (0.70 )h	0.03 (0.01)k	30.78 (1.5)jk
M p b	13.54 (1.2)op	0.33 (0.12)no	0.06 (0.03)k	13.93 (1.2)m	12.11 (1.12)m	1.82 (0.5)mn	0.08 (0.03)jk	14.01 (1.17)o
L i b	15.86 (1.2)no	0.64 (0.17)lm	0.88 (0.03)gh	17.38 (1.26)l	15.11 (1.20)l	2.27 (0.5)lm	0.04 (0.02)k	17.42 (1.26)n
A c b	49.21 (1.7)fg	1.34 (0.37)i	0.31 (0.18)j	50.86 (1.7)gh	44.23 (1.7)gh	6.63 (0.88)f	1.04 (0.3)gh	51.9 (1.72)i
M i b	19.36 (1.3)lmn	0.94 (0.25)jk	0.06 (0.05)k	20.36 (1.3)kl	17.71 (1.27)kl	2.66 (0.56)kl	0.07 (0.03)jk	20.44 (1.3)mn
Hg	90.16 (1.9)de	2.72 (0.57)f	1.52 (0.40)f	94.41 (1.9)de	82.09 (1.9)de	12.31 (1.12)e	2.97 (0.60)d	97.38 (1.9)de
Commercial Plantation Crops								
H b	51.35 (1.72)fg	0.75 (0.24)ij	0.75 (0.24)h	53.36 (1.73)g	46.40 (1.67)g	6.96 (0.90)f	1.25 (0.35)g	54.60 (1.7)hi

C n	20.71 (1.3)klm	0.07 (0.03)p	0.05 (0.02)k	20.83 (1.3)kl	18.11 (1.28)kl	2.72 (0.6)jkl	0.04 (0.02)k	20.87 (1.3)mn
A c	17.85 (1.3)mn	0.06 (0.03)p	0.08 (0.03)k	17.99 (1.28)l	15.64 (1.22)l	2.35 (0.52)l	0.02 (0.01)k	18.01 (1.28)n
M b	17.44 (1.3)mn	0.73 (0.2)klm	1.61 (0.42)f	19.78 (1.32)l	17.20 (1.26)kl	2.58 (0.6)kl	1.06 (0.3)gh	20.85 (1.3)mn
T P	47.17 (1.7)gh	29.24 (1.48)a	0.41 (0.15)ij	76.82 (1.88)f	65.30 (1.81)f	11.52 (1.09)e	0.25 (0.10)ij	77.07 (1.9)fg
<b>Fruit Orchard</b>								
P g	6.32 (0.9)qr	0.29 (0.11)o	0.06 (0.02)k	6.66 (0.9)no	5.79 (0.8)no	0.87 (0.27)o	0.02 (0.01)k	6.68 (0.9)pq
M z	12.54 (1.13)p	0.17 (0.07)op	0.08 (0.03)k	12.79 (1.1)m	11.12 (1.08)m	1.67 (0.42)n	0.11 (0.1)jk	12.90 (1.14)o
L c	7.82 (0.94)q	0.06 (0.03)p	0.07 (0.03)k	7.95 (0.95)n	6.92 (0.90)n	1.04 (0.31)o	0.09 (0.04)jk	8.05 (0.95)p
A o	17.86 (1.3)mn	0.14 (0.06)op	0.06 (0.03)k	18.07 (1.28)l	15.71 (1.22)l	2.36 (0.53)l	0.88 (0.27)h	18.95 (1.30)n
C l	6.15 (0.85)r	0.04 (0.02)p	0.01 (0.00)k	6.20 (0.86)o	5.40 (0.81)o	0.81 (0.26)o	0.07 (0.03)jk	6.27 (0.9)q
M i	22.63 (1.4)jkl	0.19 (0.08)op	0.07 (0.03)k	22.89 (1.4)jk	19.90 (1.32)jk	2.99 (0.6)ijk	0.81 (0.26)h	23.70 (1.4)lm
S <sub>em</sub>	<b>0.03</b>	<b>0.02</b>	<b>0.02</b>	<b>0.03</b>	<b>0.03</b>	<b>0.02</b>	<b>0.02</b>	<b>0.03</b>
CD <sub>p=0.05</sub>	<b>0.08</b>	<b>0.06</b>	<b>0.06</b>	<b>0.08</b>	<b>0.08</b>	<b>0.06</b>	<b>0.06</b>	<b>0.08</b>

\*figures in parenthesis are log transformed values; TBLS- Tree-based land-use system; *L p*- *Lagerstroemia parviflora*; *M c*- *Michelia champaca*; *T g*- *Tectona grandis*; *S r*- *Shorea robusta*; *S m*- *Swietenia macrophylla*; *A c*- *Anthocephalus cadamba*; *G a*- *Gmelina arborea*; *S b*- *Shorea borneensis*; *L i*- *Lagerstroemia indica*; *M m*- *Milvus migrans*; *A l b*- *Albizia lebbek* based; *S m b*- *Swietenia macrophylla* based; *T a b*- *Terminalia arjuna* based; *G a b*- *Gmelina arborea* based; *M p b*- *Millettia pinnata* based; *L i b*- *Lagerstroemia indica* based; *A c b*- *Anthocephalus cadamba* based; *M i b*- *Mangifera indica* based; Hg- homegarden; *H b*- *Hevea brasiliensis*; *C n*- *Cocos nucifera*; *A c*- *Areca catechu*; *M b*- *Machilus bombycina*; T P- tea plantation; *P g*- *Psidium guajava*; *M z*- *Manilkara zapota*; *L c*- *Litchi chinensis*; *A o*- *Anacardium occidentale*; *C l*- *Citrus lemon*; *M i*- *Mangifera indica*; TSB- total standing biomass; AGB- above ground biomass; BGB- below ground biomass; L B- litter biomass; TB- total biomass

**Supplementary Table S3. Effect of tree-based land-use systems on soil EC (dS m<sup>-1</sup>) at different depths**

Tree-based land-use system	0-20 cm	20-40 cm	40-60 cm	Mean
<b>Forest</b>				
<i>Lagerstroemia parviflora</i>	0.25±0.01	0.24±0.01	0.20±0.01	0.23cd
<i>Michelia champaca</i>	0.27±0.01	0.25±0.01	0.23±0.03	0.25bc
<i>Tectona grandis</i>	0.28±0.01	0.24±0.03	0.22±0.01	0.24bcd
<i>Shorea robusta</i>	0.27±0.01	0.26±0.01	0.24±0.03	0.26b
Mixed	0.30±0.02	0.28±0.02	0.26±0.03	0.28a
<b>Forest Tree Plantation</b>				
<i>Swietenia macrophylla</i>	0.21±0.01	0.21±0.02	0.18±0.02	0.20fg
<i>Anthocephalus cadamba</i>	0.20±0.01	0.20±0.02	0.19±0.02	0.20fg
<i>Gmelina arborea</i>	0.24±0.02	0.21±0.03	0.17±0.03	0.21ef
<i>Shorea borneensis</i>	0.23±0.01	0.18±0.02	0.15±0.01	0.18fghijk
<i>Tectona grandis</i>	0.22±0.01	0.20±0.01	0.19±0.02	0.20ef
<i>Lagerstroemia indica</i>	0.20±0.01	0.19±0.02	0.17±0.02	0.19fghij
<i>Tectona grandis</i> + <i>Milvus migrans</i>	0.20±0.00	0.19±0.01	0.19±0.02	0.20fg
A c + S m	0.19±0.01	0.15±0.01	0.13±0.02	0.16lmn
<b>Agroforestry</b>				
<i>Albizia lebbek</i> based	0.20±0.01	0.16±0.02	0.15±0.01	0.17hijklm
<i>Swietenia macrophylla</i> based	0.18±0.01	0.16±0.02	0.16±0.02	0.16jklm
<i>Terminalia arjuna</i> based	0.20±0.01	0.19±0.01	0.18±0.02	0.19fgh
<i>Gmelina arborea</i> based	0.17±0.01	0.17±0.03	0.16±0.01	0.17de
<i>Millettia pinnata</i> based	0.22±0.01	0.19±0.01	0.18±0.02	0.20ijklm
<i>Lagerstroemia indica</i> based	0.19±0.01	0.19±0.01	0.13±0.01	0.17fg
<i>Anthocephalus cadamba</i> based	0.20±0.02	0.19±0.02	0.19±0.03	0.19hijklm
<i>Mangifera indica</i> based	0.21±0.01	0.19±0.02	0.16±0.01	0.19fgh
Homegarden	0.24±0.01	0.23±0.02	0.21±0.03	0.22fghij
<b>Commercial Crop Plantation</b>				
<i>Hevea brasiliensis</i>	0.19±0.01	0.16±0.03	0.13±0.02	0.16de
<i>Cocos nucifera</i>	0.20±0.03	0.18±0.02	0.15±0.02	0.18klm
<i>Areca catechu</i>	0.19±0.02	0.18±0.03	0.17±0.02	0.16ghijkl
<i>Machilus bombycina</i>	0.20±0.01	0.18±0.02	0.15±0.02	0.18ghijkl
Tea plantations	0.25±0.02	0.23±0.01	0.22±0.01	0.23cd
<b>Fruit Orchard</b>				
<i>Psidium guajava</i>	0.17±0.01	0.16±0.03	0.14±0.03	0.16lmn
<i>Manilkara zapota</i>	0.16±0.01	0.14±0.01	0.15±0.02	0.15mn
<i>Litchi chinensis</i>	0.16±0.01	0.13±0.03	0.13±0.02	0.14m
<i>Anacardium occidentale</i>	0.19±0.01	0.19±0.02	0.15±0.01	0.18ghijkl
<i>Citrus lemon</i>	0.20±0.01	0.19±0.02	0.17±0.01	0.19fghi
<i>Mangifera indica</i>	0.22±0.01	0.20±0.03	0.15±0.02	0.19fghij
<b>Mean</b>	<b>0.21a</b>	<b>0.19b</b>	<b>0.18c</b>	

A c + S m- *Anthocephalus cadamba* + *Swietenia macrophylla*

**Supplementary Table S4. Effect of tree-based land-use systems on soil pH at different depths**

<b>Tree-based land-use system</b>	<b>0-20 cm</b>	<b>20-40 cm</b>	<b>40-60 cm</b>	<b>Mean</b>
<b>Forest</b>				
<i>Lagerstroemia parviflora</i>	4.64±0.04	4.74±0.04	5.17±0.07	4.85pq
<i>Michelia champaca</i>	4.73±0.07	4.90±0.04	5.20±0.03	4.94p
<i>Tectona grandis</i>	4.72±0.09	4.74±0.07	5.11±0.02	4.86pq
<i>Shorea robusta</i>	5.69±0.11	5.82±0.05	5.79±0.09	5.77abc
Mixed	4.23±0.07	5.06±0.08	5.16±0.04	4.82q
<b>Forest Tree Plantation</b>				
<i>Swietenia macrophylla</i>	5.45±0.04	5.73±0.08	5.55±0.05	5.58ghijk
<i>Anthocephalus cadamba</i>	5.11±0.02	5.23±0.05	5.38±0.05	5.24o
<i>Gmelina arborea</i>	5.19±0.11	5.41±0.08	5.54±0.12	5.38mn
<i>Shorea borneensis</i>	5.74±0.05	5.85±0.05	5.82±0.07	5.80a
<i>Tectona grandis</i>	5.73±0.05	5.86±0.05	5.83±0.05	5.81a
<i>Lagerstroemia indica</i>	5.68±0.10	5.77±0.09	5.73±0.06	5.73abcdef
<i>Tectona grandis</i> + <i>Milvus migrans</i>	5.45±0.09	5.61±0.10	5.83±0.06	5.63efghij
A c + S m	5.59±0.05	5.58±0.09	5.84±0.06	5.67bcdefgh
<b>Agroforestry</b>				
<i>Albizia lebbek</i> based	5.46±0.08	5.78±0.02	5.64±0.06	5.63efghij
<i>Swietenia macrophylla</i> based	5.47±0.11	5.66±0.03	5.48±0.05	5.54ijk
<i>Terminalia arjuna</i> based	5.43±0.06	5.67±0.05	5.73±0.06	5.61efghijk
<i>Gmelina arborea</i> based	5.34±0.08	5.58±0.03	5.68±0.05	5.53ijk
<i>Millettia pinnata</i> based	5.56±0.04	5.67±0.05	5.71±0.06	5.65cdefghij
<i>Lagerstroemia indica</i> based	5.45±0.09	5.75±0.04	5.74±0.04	5.64cdefghi
<i>Anthocephalus cadamba</i> based	5.65±0.08	5.8±0.07	5.76±0.09	5.74abcde
<i>Mangifera indica</i> based	5.22±0.08	5.4±0.04	5.62±0.06	5.41lmn
Homegarden	5.19±0.05	5.23±0.03	5.35±0.09	5.23o
<b>Commercial Crop Plantation</b>				
<i>Hevea brasiliensis</i>	5.74±0.10	5.74±0.06	5.79±0.10	5.76abcd
<i>Cocos nucifera</i>	5.56±0.11	5.65±0.03	5.77±0.04	5.52jkl
<i>Areca catechu</i>	5.44±0.10	5.51±0.04	5.62±0.02	5.52ijkl
<i>Machilus bombycina</i>	5.19±0.08	5.24±0.06	5.33±0.04	5.25o
Tea plantations	5.10±0.04	5.16±0.09	5.67±0.08	5.30no
<b>Fruit Orchard</b>				
<i>Psidium guajava</i>	5.14±0.08	5.23±0.05	5.35±0.06	5.24o
<i>Manilkara zapota</i>	5.67±0.05	5.84±0.05	5.84±0.04	5.78ab
<i>Litchi chinensis</i>	5.57±0.11	5.80±0.07	5.90±0.03	5.76abc
<i>Anacardium occidentale</i>	5.51±0.07	5.69±0.09	5.72±0.08	5.64defghij
<i>Citrus lemon</i>	5.64±0.09	5.65±0.05	5.80±0.09	5.70abcdefg
<i>Mangifera indica</i>	5.20±0.08	5.59±0.05	5.68±0.03	5.49klm
Mean	5.38c	5.51b	5.59a	

A c + S m- *Anthocephalus cadamba* + *Swietenia macrophylla*

**Supplementary Table S5. Effect of tree-based land-use systems on soil moisture (%) at different depths**

<b>Tree-based land-use system</b>	<b>0-20 cm</b>	<b>20-40 cm</b>	<b>40-60 cm</b>	<b>Mean</b>
<b>Forest</b>				
<i>Lagerstroemia parviflora</i>	27.33±0.22	28.70±0.38	30.73±0.71	28.92bcd
<i>Michelia champaca</i>	26.04±0.36	27.41±0.60	28.93±0.87	27.46defghij
<i>Tectona grandis</i>	26.98±0.51	28.14±0.69	29.91±0.93	28.34cdefgh
<i>Shorea robusta</i>	25.95±0.72	25.25±0.67	24.03±0.29	25.08lm
Mixed	30.10±0.53	32.46±0.69	33.18±0.38	31.92a
<b>Forest Tree Plantation</b>				
<i>Swietenia macrophylla</i>	25.60±0.20	26.24±0.78	26.89±0.25	26.24ijkl
<i>Anthocephalus cadamba</i>	24.60±0.37	29.60±0.75	31.84±0.48	28.68cdef
<i>Gmelina arborea</i>	24.25±0.62	25.51±0.99	26.11±0.51	25.29klm
<i>Shorea borneensis</i>	21.25±0.63	28.82±0.64	28.89±0.55	26.32ijkl
<i>Tectona grandis</i>	24.60±0.61	27.94±0.42	28.53±0.09	27.02efghijk
<i>Lagerstroemia indica</i>	27.83±0.50	29.30±0.26	30.79±0.65	29.31bc
<i>Tectona grandis</i> + <i>Milvus migrans</i>	26.50±0.63	28.63±0.22	29.66±0.28	28.26cdefgh
A c + S m	22.91±0.44	25.31±0.35	25.26±0.18	24.49mn
<b>Agroforestry</b>				
<i>Albizia lebbek</i> based	25.49±0.47	26.44±0.57	28.84±0.27	26.92fghijk
<i>Swietenia macrophylla</i> based	26.78±0.92	28.61±0.66	29.89±0.15	28.43cdefg
<i>Terminalia arjuna</i> based	25.43±0.35	26.79±0.31	27.08±0.43	26.43ijkl
<i>Gmelina arborea</i> based	24.65±0.97	26.76±0.81	28.65±0.94	26.69ghijkl
<i>Millettia pinnata</i> based	25.02±0.47	25.32±0.61	27.11±0.91	26.48ijkl
<i>Lagerstroemia indica</i> based	25.32±0.85	26.52±0.90	27.40±2.36	26.41ijkl
<i>Anthocephalus cadamba</i> based	23.77±0.28	26.96±0.48	29.55±0.51	26.76ghijk
<i>Mangifera indica</i> based	25.02±0.88	25.32±0.64	27.11±4.71	25.82jklm
Homegarden	25.99±0.58	26.98±0.88	29.55±1.01	27.5defghij
<b>Commercial Crop Plantation</b>				
<i>Hevea brasiliensis</i>	25.94±0.81	28.18±0.49	30.01±0.54	28.04cdefghi
<i>Cocos nucifera</i>	25.26±0.60	27.12±0.63	28.97±0.59	27.12efghij
<i>Areca catechu</i>	25.19±0.33	30.66±0.95	30.33±0.11	28.73cde
<i>Machilus bombycina</i>	25.68±0.16	27.05±0.71	27.17±0.27	26.63hijkl
Tea plantations	29.50±0.66	30.70±0.60	31.16±0.43	30.45ab
<b>Fruit Orchard</b>				
<i>Psidium guajava</i>	24.26±0.92	25.84±1.00	31.10±0.67	27.07efghij
<i>Manilkara zapota</i>	23.13±0.90	24.62±0.29	25.70±3.74	24.48mn
<i>Litchi chinensis</i>	25.97±0.11	26.15±0.52	27.14±1.03	26.42ijkl
<i>Anacardium occidentale</i>	22.22±0.79	23.37±0.75	24.74±0.50	23.44m
<i>Citrus lemon</i>	24.77±0.74	25.65±0.44	26.93±0.69	25.78jklm
<i>Mangifera indica</i>	24.27±0.44	26.97±0.60	27.91±0.05	26.38ijkl
Mean	25.40c	26.89b	28.61a	

A c + S m- *Anthocephalus cadamba* + *Swietenia macrophylla*

**Supplementary Table S6. Effect of tree-based land-use systems on soil available nitrogen (kg ha<sup>-1</sup>) at different depths**

<b>TBLS</b>	<b>0-20 cm</b>	<b>20-40 cm</b>	<b>40-60 cm</b>	<b>Mean</b>
<b>Forest</b>				
L p	250.72±7.32	217.80±11.26	190.92±3.24	219.82cd
<i>Michelia champaca</i>	261.20±6.39	207.47±11.42	187.36±2.61	218.67cd
<i>Tectona grandis</i>	243.06±3.08	208.76±6.64	181.76±1.99	211.19d
<i>Shorea robusta</i>	245.87±4.19	223.52±9.83	214.85±3.99	228.08bc
Mixed	291.29±3.87	246.05±3.83	234.40±7.81	257.25a
<b>Forest Tree Plantation</b>				
<i>Swietenia macrophylla</i>	197.70±7.22	164.23±6.36	124.40±7.81	162.11ghi
A c	191.97±2.74	150.75±5.82	112.82±1.47	151.85ijklmn
<i>Gmelina arborea</i>	190.67±7.08	147.79±6.20	108.96±6.62	149.14klmn
<i>Shorea borneensis</i>	192.22±6.02	132.00±9.17	127.32±2.18	150.52ijklmn
<i>Tectona grandis</i>	188.09±6.92	129.33±3.93	110.22±2.44	142.55n
<i>Lagerstroemia indica</i>	190.89±6.53	141.15±4.66	117.67±5.81	149.90jklm
T g + M m	198.78±5.96	157.00±5.01	125.67±5.70	160.48ghijk
A c + S m	192.83±6.87	134.71±3.83	113.33±2.60	146.96mn
<b>Agroforestry</b>				
<i>Albizia lebbbeck</i> based	202.53±3.93	156.77±3.72	126.59±3.25	161.96ghi
S m based	204.65±4.18	141.12±4.47	137.67±1.45	161.14ghij
T a based	199.99±5.10	144.15±6.98	118.31±2.83	154.15hijklm
<i>Gmelina arborea</i> based	184.00±2.20	150.02±1.65	123.08±3.14	152.37ijklmn
<i>Millettia pinnata</i> based	206.57±8.84	143.00±8.50	131.16±2.31	160.24bghijk
L i based	202.71±4.05	140.78±5.14	122.67±2.33	155.39ghijklm
A c based	191.38±4.29	132.33±9.06	124.58±3.29	149.43klmn
<i>Mangifera indica</i> based	185.14±2.45	166.59±5.01	126.25±3.99	159.33ghijkl
Homegarden	250.92±8.29	220.53±5.32	217.68±8.54	230.76b
<b>Commercial Crop Plantation</b>				
<i>Hevea brasiliensis</i>	198.82±6.13	153.46±8.36	111.62±1.69	154.64hijklm
<i>Cocos nucifera</i>	190.37±7.32	143.95±8.05	112.74±1.67	149.02klmn
<i>Areca catechu</i>	210.12±2.57	132.29±8.90	105.88±1.45	149.43klmn
<i>Machilus bombycina</i>	186.16±11.19	153.40±5.26	105.51±0.91	148.36lmn
Tea plantations	261.41±9.84	172.80±1.75	108.44±6.64	180.89e
<b>Fruit Orchard</b>				
<i>Psidium guajava</i>	209.17±6.63	184.77±8.74	154.75±4.37	182.90e
<i>Manilkara zapota</i>	192.23±11.22	170.24±9.28	156.37±7.24	172.95ef
<i>Litchi chinensis</i>	209.88±0.96	177.13±4.90	145.45±3.46	177.49e
A o	193.72±6.94	160.41±7.30	144.46±4.06	166.20fg
<i>Citrus lemon</i>	190.84±9.76	169.40±1.72	157.00±1.48	172.75ef
<i>Mangifera indica</i>	196.77±6.28	157.62±4.67	141.23±4.60	165.21fgh
<b>Mean</b>	<b>209.17a</b>	<b>164.71b</b>	<b>140.03c</b>	

TBLS- tree-based land-use system; L p- *Lagerstroemia parviflora*; A c- *Anthocephalus cadamba*; T g + M m- *Tectona grandis* + *Milvus migrans*; S m- *Swietenia macrophylla*; T a- *Terminalia arjuna*; L i- *Lagerstroemia indica*; A o- *Anacardium occidentale*

**Supplementary Table S7. Effect of tree-based land-use systems on soil available phosphorus (kg ha<sup>-1</sup>) at different depths**

Tree based land use system	0-20 cm	20-40 cm	40-60 cm	Mean
<b>Forest</b>				
<i>Lagerstroemia parviflora</i>	25.77±0.72	19.39±0.88	18.14±0.87	21.10cd
<i>Michelia champaca</i>	25.08±0.91	18.91±0.92	17.49±0.72	20.49d
<i>Tectona grandis</i>	26.33±0.88	22.94±1.01	18.09±0.92	22.45b
<i>Shorea robusta</i>	26.48±0.52	21.06±0.93	18.45±0.91	22.00bc
Mixed	30.15±0.54	24.42±0.52	19.62±0.58	24.73a
<b>Forest Tree Plantation</b>				
<i>Swietenia macrophylla</i>	19.33±1.20	18.33±0.88	15.58±0.89	17.75f
<i>Anthocephalus cadamba</i>	17.23±0.62	15.03±0.65	14.87±0.87	15.71hijk
<i>Gmelina arborea</i>	18.16±1.19	16.06±0.67	15.48±1.10	16.57fghi
<i>Shorea borneensis</i>	19.31±0.56	16.13±0.64	15.01±0.58	16.82fghi
<i>Tectona grandis</i>	18.02±0.81	16.20±0.74	15.96±1.01	16.73fghi
<i>Lagerstroemia indica</i>	17.33±1.20	17.37±0.69	15.23±0.87	16.64fghi
T g + M m	16.45±1.18	16.36±1.05	14.25±0.90	15.68hijk
A c + S m	18.21±0.85	17.12±0.47	15.87±1.02	17.07fgh
<b>Agroforestry</b>				
<i>Albizia lebbek</i> based	16.16±1.04	15.68±0.87	15.02±0.57	15.62ijk
<i>Swietenia macrophylla</i> based	17.34±1.20	16.30±0.58	15.22±0.91	16.29ghij
<i>Terminalia arjuna</i> based	18.03±0.89	18.09±0.58	16.43±0.97	17.52fg
<i>Gmelina arborea</i> based	17.35±1.20	15.21±0.41	15.16±0.70	15.90hij
<i>Millettia pinnata</i> based	16.05±0.80	14.89±0.87	14.22±0.40	15.05jk
<i>Lagerstroemia indica</i> based	17.11±1.06	15.57±0.65	14.05±0.53	15.58ijk
A c based	16.18±0.24	14.67±0.89	14.09±0.48	14.98jk
<i>Mangifera indica</i> based	17.21±0.58	15.08±0.99	16.13±0.65	16.14ghij
Homegarden	23.37±0.35	19.82±1.02	14.20±0.93	19.13e
<b>Commercial Crop Plantation</b>				
<i>Hevea brasiliensis</i>	19.20±0.86	14.04±0.54	13.16±0.45	15.47ijk
<i>Cocos nucifera</i>	16.68±0.61	16.07±0.49	15.47±0.65	16.07hij
<i>Areca catechu</i>	17.33±0.88	16.16±0.43	13.34±0.41	15.61ijk
<i>Machilus bombycina</i>	18.60±0.74	14.34±0.34	11.91±0.35	14.95jk
Tea plantations	28.22±0.51	23.43±0.66	21.94±1.04	24.53a
<b>Fruit Orchard</b>				
<i>Psidium guajava</i>	16.16±0.60	15.03±0.58	13.70±0.45	14.96jk
<i>Manilkara zapota</i>	15.11±0.88	14.04±0.51	13.96±0.77	14.37k
<i>Litchi chinensis</i>	16.19±0.67	15.54±0.36	15.02±0.71	15.58ijk
<i>Anacardium occidentale</i>	14.05±0.76	13.09±0.58	11.62±0.30	12.92l
<i>Citrus lemon</i>	15.53±0.40	11.34±0.34	10.68±0.18	12.52l
<i>Mangifera indica</i>	14.25±0.61	12.17±0.58	10.43±0.49	12.28l
<b>Mean</b>	19.03a	16.68b	15.13c	

T g- *Tectona grandis*; M m- *Milvus migrans*; A c- *Anthocephalus cadamba*; S m- *Swietenia macrophylla*

**Supplementary Table S8. Effect of tree-based land-use systems on soil available potassium (Kg ha<sup>-1</sup>) at different depths**

TBLS	0-20 cm	20-40 cm	40-60 cm	Mean
<b>Forest</b>				
L p	122.16±9.11	116.32±2.33	113.28±7.41	117.25d
<i>Michelia champaca</i>	124.74±5.26	103.25±6.63	90.26±6.00	106.08cd
<i>Tectona grandis</i>	118.48±1.04	110.66±5.81	101.40±7.02	110.18bc
<i>Shorea robusta</i>	129.49±0.84	124.92±2.89	90.26±6.00	114.89bc
Mixed	141.14±6.05	131.74±4.28	114.92±2.69	129.27a
<b>Tree Plantation</b>				
<i>Swietenia macrophylla</i>	86.10±4.61	83.07±4.62	78.60±1.05	82.50ghi
<i>Anthocephalus cadamba</i>	88.17±1.57	73.69±4.82	64.38±3.96	75.41gklmn
<i>Gmelina arborea</i>	87.61±1.46	71.45±2.61	64.10±3.15	74.38ijklm
<i>Shorea borneensis</i>	91.01±2.77	75.18±3.46	63.97±7.27	76.72hijklm
<i>Tectona grandis</i>	89.23±2.32	59.25±5.31	54.74±2.90	67.74mn
<i>Lagerstroemia indica</i>	87.62±2.21	66.27±3.33	57.44±3.77	70.44jklmn
T g + M m	90.15±4.05	88.50±1.63	65.54±7.29	81.40ghij
A c + S m	112.60±7.28	103.03±2.45	76.80±4.11	97.48de
<b>Agroforestry</b>				
<i>Albizia lebbbeck</i> based	126.23±3.77	116.48±10.75	85.74±5.74	109.48bc
S m based	100.41±6.13	99.74±0.85	81.53±7.14	93.89ef
<i>Terminalia arjuna</i> based	94.24±2.65	86.62±2.15	71.07±6.72	83.98ghi
<i>Gmelina arborea</i> based	84.36±4.43	80.31±5.50	63.94±6.99	76.20hijklm
<i>Millettia pinnata</i> based	75.50±8.67	66.81±1.98	50.72±5.74	64.34n
L i based	90.29±2.15	71.54±4.50	67.38±3.74	76.40hijklm
A c based	109.09±5.84	83.43±2.10	54.60±7.91	82.37ghi
<i>Mangifera indica</i> based	91.35±2.85	82.53±7.58	79.85±0.88	84.58fghi
Homegarden	87.62±1.92	79.92±3.79	75.75±8.15	81.10ghij
<b>Commercial Crop Plantation</b>				
<i>Hevea brasiliensis</i>	107.91±1.10	81.53±7.14	69.47±5.32	86.30fgh
<i>Cocos nucifera</i>	93.27±5.64	83.82±7.87	71.44±8.32	82.84ghi
<i>Areca catechu</i>	106.40±4.03	82.72±3.68	78.17±9.22	89.10fg
<i>Machilus bombycina</i>	94.21±4.53	91.55±7.16	71.07±6.72	85.61fgh
Tea plantations	123.19±4.64	98.47±7.94	72.67±6.46	98.11de
<b>Fruit Orchard</b>				
<i>Psidium guajava</i>	107.76±3.68	99.40±2.43	84.94±4.94	97.37de
<i>Manilkara zapota</i>	99.57±2.40	78.46±8.01	61.23±9.19	79.75ghijk
<i>Litchi chinensis</i>	103.59±2.61	76.64±4.04	56.20±6.11	78.81hijkl
<i>Anacardium occidentale</i>	94.44±3.55	75.54±2.62	55.41±3.93	75.13ijklm
<i>Citrus lemon</i>	93.24±7.41	64.57±4.90	51.77±4.24	69.86klmn
<i>Mangifera indica</i>	94.59±2.32	61.79±6.05	51.03±5.60	69.14lmn
<b>Mean</b>	100.85a	86.95b	72.42c	

TBLS- Tree-based land-use system; L p- *Lagerstroemia parviflora*; T g- *Tectona grandis*; M m- *Milvus migrans*; A c- *Anthocephalus cadamba*; S m- *Swietenia macrophylla*; L i- *Lagerstroemia indica*

**Supplementary Table S9. Effect of tree-based land-use systems on biomass carbon stock and partitioning (Mg ha<sup>-1</sup>)**

TBLS	TC	SC	HC	TPC	AGC	BGC	LC	TBC
<b>Forest</b>								
L p	65.18 *(1.8)c	5.70 (0.8)c	1.61 (0.4)c	72.49 (1.9)c	63.03 (1.81)c	9.45 (1.0)c	7.05 (0.9)a	79.54 (1.9)c
M c	70.35 (1.9)c	5.10 (0.8)c	1.70 (0.4)c	77.15 (1.9)c	67.08 (1.83)c	10.06 (1.0)c	4.68 (0.8)b	81.82 (1.9)c
T g	69.84 (1.9)c	5.27 (0.8)c	2.07 (0.5)b	77.18 (1.9)c	67.11 (1.83)c	10.07 (1.0)c	7.24 (0.9)a	84.42 (1.9)c
S r	128.0 (2.1)b	3.72 (0.7)d	1.40 (0.4)cd	133.1 (2.1)b	115.77 (2.07)b	17.37 (1.3)b	6.21 (0.9)a	139.35 (2.15)b
Mixed	371.6 (2.6)a	8.90 (0.9)b	3.31 (0.6)a	383.8 (2.6)a	333.74 (2.52)a	50.06 (1.7)a	6.80 (0.9)a	390.61 (2.59)a
<b>Forest Tree Plantation</b>								
S m	19.57 (1.3)h	1.03 (0.3)g	0.47 (0.2)gh	21.06 (1.3)h	18.31 (1.29)h	2.75 (0.6)g	1.79 (0.5)d	22.85 (1.38)i
A c	29.14 (1.5)f	0.45 (0.2)jkl	0.58 (0.20)g	30.17 (1.5)g	26.23 (1.43)g	3.94 (0.7)f	1.75 (0.4)a	31.92 (1.52)gh
G a	13.68 (1.2)ij	0.77 (0.25)hi	0.46 (0.2)gh	14.91 (1.2)i	12.96 (1.14)i	1.94 (0.5)h	1.16 (0.3)e	16.07 (1.23)j
S b	13.80 (1.2)ij	0.99 (0.3)gh	0.43 (0.2)gh	15.22 (1.2)i	13.23 (1.15)i	1.99 (0.5)h	0.87 (0.3)f	16.09 (1.23)j
T g	11.32 (1.1)kl	0.95 (0.3)gh	0.45 (0.2)gh	12.72 (1.1)ij	11.06 (1.08)ij	1.66 (0.4)hij	0.48 (0.2)gh	13.21 (1.2)jkl
L i	19.52 (1.3)h	0.78 (0.25)hi	1.18 (0.3)de	21.47 (1.4)h	18.67 (1.29)h	2.80 (0.58)g	2.26 (0.51)c	23.74 (1.39)i
T g+M m	41.11 (1.6)e	0.59 (0.20)ij	0.42 (0.15)h	42.12 (1.6)ef	36.62 (1.57)ef	5.49 (0.81)e	0.87 (0.27)f	42.99 (1.64)ef
A c+ S m	51.95 (1.7)d	2.77 (0.57)e	1.06 (0.31)e	55.78 (1.8)d	48.50 (1.69)d	7.28 (0.92)d	0.15 (0.06)i	55.93 (1.75)d
<b>Agroforestry</b>								
A l b	8.83 (0.9)mn	0.40 (0.15)kl	0.02 (0.01)k	9.25 (1.0)l	8.04 (0.95)l	1.21 (0.34)kl	0.03 (0.01)k	9.28 (1.01)h
S m b	39.72 (1.6)e	0.66 (0.22)i	0.03 (0.01)k	40.41 (1.6)ef	35.13 (1.56)ef	5.27 (0.80)e	1.50 (0.40)d	41.91 (1.63)ef
T a b	12.76 (1.1)ijk	0.25 (0.1)mn	0.06 (0.03)k	13.07 (1.2)ij	11.36 (1.09)ij	1.70 (0.43)hi	0.01 (0.00)k	13.08 (1.15)kl
G a b	14.15 (1.18)i	0.97 (0.3)gh	0.25 (0.10)i	15.38 (1.2)i	13.37 (1.16)i	2.01 (0.48)h	0.01 (0.01)k	15.39 (1.21)jk
M p b	6.77 (0.9)op	0.16 (0.1)no	0.03 (0.01)k	6.97 (0.9)m	6.06 (0.85)m	0.91 (0.3)mn	0.04 (0.02)jk	7.00 (0.90)o
L i b	7.93 (0.9)no	0.32 (0.1)lm	0.44 (0.2)gh	8.69 (0.9)l	7.56 (0.93)l	1.13 (0.3)lm	0.02 (0.01)k	8.71 (0.98)n
A c b	24.61 (1.4)fg	0.67 (0.22)i	0.15 (0.06)j	25.43 (1.4)gh	22.11 (1.4)gh	3.32 (0.63)f	0.52 (0.2)gh	25.95 (1.43)i
M i b	9.68	0.47	0.03	10.18	8.85	1.33	0.04	10.22

	(1.0)mn	(0.17)jk	(0.01)k	(1.05)kl	(0.99)kl	(0.37)kl	(0.02)jk	(1.1)mn
Hg	45.08	1.36	0.76	47.20	41.05	6.16	1.49	48.69
	(1.7)de	(0.37)f	(0.25)f	(1.7)de	(1.6)de	(0.85)e	(0.39)d	(1.7)de
<b>Commercial Plantation Crops</b>								
H b	25.68	0.37	0.37	26.42	22.98	3.45	0.62	27.05
	(1.4)fg	(0.14)ij	(0.14)h	(1.44)g	(1.38)g	(0.65)f	(0.21)g	(1.45)hi
C n	10.36	0.04	0.02	10.42	9.06	1.36	0.02	10.44
	(1.1)klm	(0.02)p	(0.01)k	(1.06)kl	(1.00)kl	(0.4)jkl	(0.01)k	(1.1)mn
A c	8.93	0.03	0.04	8.99	7.82	1.17	0.01	9.00
	(1.0)mn	(0.01)p	(0.02)k	(1.00)l	(0.95)l	(0.34)l	(0.00)k	(1.00)n
M b	8.72	0.37	0.81	9.89	8.60	1.29	0.53	10.42
	(0.9)mn	(0.1)klm	(0.26)f	(1.04)l	(0.98)kl	(0.36)kl	(0.2)gh	(1.1)mn
T P	23.58	14.62	0.21	38.41	32.65	5.76	0.13	38.54
	(1.4)gh	(1.19)a	(0.08)ij	(1.59)f	(1.52)f	(0.82)e	(0.05)ij	(1.6)fg
<b>Fruit Orchard</b>								
P g	3.16	0.14	0.03	3.33	2.90	0.43	0.01	3.34
	(0.6)qr	(0.06)o	(0.01)k	(0.6)no	(0.6)no	(0.16)o	(0.01)k	(0.6)pq
M z	6.27	0.08	0.04	6.39	5.56	0.83	0.06	6.45
	(0.9)p	(0.03)op	(0.02)k	(0.86)m	(0.81)m	(0.26)n	(0.02)jk	(0.87)o
L c	3.91	0.03	0.03	3.98	3.46	0.52	0.05	4.02
	(0.7)q	(0.01)p	(0.01)k	(0.70)n	(0.65)n	(0.18)o	(0.02)jk	(0.70)p
A o	8.93	0.07	0.03	9.03	7.85	1.18	0.44	9.47
	(1.0)mn	(0.03)op	(0.01)k	(1.00)l	(0.95)l	(0.34)l	(0.16)h	(1.02)n
C l	3.08	0.02	0.01	3.10	2.70	0.40	0.04	3.14
	(0.6)r	(0.01)p	(0.00)k	(0.61)o	(0.57)o	(0.15)o	(0.02)jk	(0.62)q
M i	11.31	0.10	0.04	11.44	9.95	1.49	0.40	11.85
	(1.1)jkl	(0.04)op	(0.02)k	(1.09)k	(1.04)k	(0.4)ijk	(0.15)h	(1.1)lm
S <sub>em</sub>	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.03
CD <sub>p=0.05</sub>	0.08	0.05	0.05	0.07	0.07	0.05	0.05	0.07

\*figures in parenthesis are log transformed values; TBLS- Tree-based land-use system; *L p- Lagerstroemia parviflora*; *M c- Michelia champaca*; *T g- Tectona grandis*; *S r- Shorea robusta*; *S m- Swietenia macrophylla*; *A c- Anthocephalus cadamba*; *G a- Gmelina arborea*; *S b- Shorea borneensis*; *L i- Lagerstroemia indica*; *M m- Milvus migrans*; *A l b- Albizia lebeck* based; *S m b- Swietenia macrophylla* based; *T a b- Terminalia arjuna* based; *G a b- Gmelina arborea* based; *M p b- Millettia pinnata* based; *L i b- Lagerstroemia indica* based; *A c b- Anthocephalus cadamba* based; *M i b- Mangifera indica* based; Hg- homegarden; *H b- Hevea brasiliensis*; *C n- Cocos nucifera*; *A c- Areca catechu*; *M b- Machilus bombycina*; T P- tea plantation; *P g- Psidium guajava*; *M z- Manilkara zapota*; *L c- Litchi chinensis*; *A o- Anacardium occidentale*; *C l- Citrus lemon*; *M i- Mangifera indica*; TC- tree carbon; SC- shrub carbon, HC- herb carbon; TPC- total plant carbon; AGC- above ground carbon; BGC- below ground carbon; L C- litter carbon; TBC- total biomass carbon

**Supplementary Table S10. Effect of tree-based land-use system on ecosystem carbon (Mg ha<sup>-1</sup>)**

TBLS	TPC	L <sub>t</sub> C	SOC	E <sub>m</sub> C
<b>Forest</b>				
L p	72.49(1.87)*c	7.05(0.90)ab	113.77(2.06)b	193.31(2.29)c
M c	77.15(1.89)c	4.68(0.75)c	108.73(2.04)bc	190.55(2.28)c
T g	77.18(1.89)c	7.24(0.91)a	105.51(2.03)bc	189.93(2.28)c
S r	133.13(2.13)b	6.21(0.86)b	110.82(2.05)bc	250.16(2.40)b
Mixed	383.81(2.58)a	6.80(0.89)ab	126.67(2.11)a	517.27(2.71)a
<b>Forest Tree Plantation</b>				
S m	21.06(1.34)h	1.79(0.45)e	64.58(1.82)e	87.44(1.95)fgh
A c	30.17(1.49)g	1.75(0.44)e	63.64(1.81)ef	95.55(1.98)fgh
G a	14.91(1.20)i	1.16(0.33)f	60.00(1.8)efgh	76.07(1.89)hijk
S b	15.22(1.21)i	0.87(0.27)g	60.03(1.8)efgh	76.12(1.88)ijk
T g	12.72(1.14)ij	0.48(0.17)hi	61.50(1.8)efgh	74.70(1.88)ijk
L i	21.47(1.35)h	2.26(0.51)d	60.48(1.8)efgh	84.21(1.93)fgh
T g + M m	42.12(1.63)fg	0.87(0.27)g	60.00(1.8)efgh	102.99(2.02)efg
A c + S m	55.78(1.75)d	0.15(0.06)j	60.07(1.8)efgh	116.02(2.07)e
<b>Agroforestry</b>				
A l based	9.25(1.01)l	0.03(0.01)j	61.85(1.8)efgh	71.14(1.86)ijk
S m based	40.41(1.62)ef	1.50(0.40)e	62.49(1.8)efgh	104.40(2.02)efg
T a based	13.07(1.15)ij	0.01(0.00)j	60.58(1.8)efgh	73.65(1.87)ijk
G a based	15.38(1.21)i	0.01(0.01)j	61.91(1.8)efgh	77.31(1.89)hijk
M p based	6.97(0.90)m	0.04(0.02)j	61.01(1.8)efgh	68.03(1.8)jklm
L I based	8.69(0.98)l	0.02(0.01)j	62.44(1.82)e	71.14(1.86)ijk
A c based	25.43(1.42)g	0.52(0.18)hi	61.94(1.80)efgh	87.90(1.95)fgh
M i based	10.18(1.05)kl	0.04(0.02)j	60.9(1.79)efgh	71.12(1.86)ijk
Hg	47.20(1.68)d	1.49(0.39)e	90.34(1.96)d	139.02(2.15)d
<b>Commercial Plantation Crops</b>				
H b	26.42(1.44)g	0.62(0.21)h	60.05(1.8)efgh	87.10(1.94)fgh
C n	10.42(1.06)kl	0.02(0.01)j	60.8(1.79)efgh	71.24(1.86)ijk
A c	8.99(1.00)l	0.01(0.00)j	63.59(1.81)efg	72.60(1.87)ijk
M b	9.89(1.04)kl	0.53(0.19)hi	63.24(1.81)efg	73.66(1.87)ijk
T p	38.41(1.59)f	0.13(0.05)j	103.19(2.02)c	141.74(2.15)d
<b>Fruit Orchard</b>				
P g	3.33(0.64)no	0.01(0.01)j	59.40(1.8)efgh	62.74(1.8)jklm
M z	6.39(0.86)m	0.06(0.02)j	60.04(1.8)efgh	66.48(1.83)jklm
L c	3.98(0.70)n	0.05(0.02)j	57.45(1.77)h	61.48(1.80)jklm
A o	9.03(1.00)l	0.44(0.16)hi	58.72(1.78)fgh	68.19(1.84)jklm
C l	3.10(0.61)o	0.04(0.02)j	57.63(1.77)gh	60.77(1.79)jklm
M i	11.44(1.09)jk	0.40(0.15)i	58.31(1.77)fgh	70.16(1.85)ijk
S <sub>em</sub>	<b>0.03</b>	<b>0.02</b>	<b>0.01</b>	<b>0.02</b>
CD <sub>p=0.05</sub>	<b>0.07</b>	<b>0.05</b>	<b>0.04</b>	<b>0.06</b>

\*figures in parenthesis are log transformed values; TBLS- Tree-based land-use system; L p- *Lagerstroemia parviflora*; M c- *Michelia champaca*; T g- *Tectona grandis*; S r- *Shorea robusta*; S m- *Swietenia macrophylla*; A c- *Anthocephalus cadamba*; G a- *Gmelina arborea*; S b- *Shorea borneensis*; L i- *Lagerstroemia indica*; M m- *Milvus migrans*; A l- *Albizia lebbek*; T a- *Terminalia arjuna*; M p- *Milletia pinnata*; L i- *Lagerstroemia indica*; M i- *Mangifera indica*; Hg- homegarden; H b- *Hevea brasiliensis*; C n- *Cocos nucifera*; A c- *Areca catechu*; M b- *Machilus bombycina*; T p- tea plantations; P g- *Psidium guajava*; M z- *Manilkara zapota*; L c- *Litchi chinensis*; A o- *Anacardium occidentale*; C l- *Citrus lemon*; TPC- total plant carbon; L<sub>t</sub> C- litter carbon; SOC- soil organic carbon (up to 60 cm soil depth); EC- ecosystem carbon