

**Table S1:** Key characteristics of past VTCSs research special reference to the sustainability and productivity dimensions

Reference	Year	Publication Type				Research Type				Research design				Research cluster					Sustainability and productivity dimensions															
		JA	BC	RR	CP	Em.	E	D	C	QN	QL	MM	1	2	3	4a	4b	4c	Ecological productivity				Economic productivity				Social productivity				Cultural productivity			
																			BD	LH	WH	AC	FP	W	L	CV	FS	HH	PL	G	TK	BV	IV	RV
<i>Abeysingha et al. [1]</i>	2021	*					*					*					*	*						*			*							
<i>Abeysingha, et al. [2]</i>	2018	*						*	*		*							*	*	*							*							
<i>Abeywardana et al. [3]</i>	2019	*					*				*						*						*								*			
<i>Abeywardana et al. [4]</i>	2019	*					*				*						*						*											
<i>Abeywardana et al. [5]</i>	2018	*					*				*						*						*											
<i>Aheeyar et al. [6]</i>	2023	*				*						*	*				*								*	*								
<i>Amerasinghe et al. [7]</i>	2001			*		*				*								*									*							
<i>Amerasinghe et al. [8]</i>	1997	*				*				*								*									*							
<i>Anuradha et al. [9]</i>	2019	*				*						*	*									*			*			*						
<i>Ariyawanshe et al. [10]</i>	2023	*				*						*					*												*					
<i>Avtar et al. [11]</i>	2013	*				*				*				*	*								*											
<i>Bebermeier et al. [12]</i>	2017	*				*				*							*						*											
<i>Bebermeier et al. [13]</i>	2023	*					*				*					*	*						*											
<i>Chandrajith et al. [14]</i>	2008	*				*				*							*	*			*		*				*							
<i>Dayananda et al. [15]</i>	2021	*				*				*				*			*					*	*											
<i>Dayananda et al. [16]</i>	2023	*				*				*				*			*					*	*											
<i>De Silva et al. [17]</i>	2002	*					*			*				*									*				*							
<i>Dharmasena [18]</i>	1994	*				*				*			*	*		*	*			*		*	*				*							
<i>Dharmasena [19]</i>	2010		*				*				*					*	*		*	*	*													
<i>Dharmasena [20]</i>	2020		*				*	*		*			*				*		*	*	*													
<i>Dharma-wardana [21]</i>	2015	*					*	*			*							*				*					*							
<i>Dilini et al. [22]</i>	2021	*				*					*	*													*	*		*						
<i>Dissanayake [23]</i>	2022		*			*					*					*	*		*	*	*													
<i>Dissanayake et al. [24]</i>	2023	*				*					*					*	*	*	*	*	*													
<i>Fernando et al. [25]</i>	2018				*		*				*					*		*		*	*													
<i>Fernando et al. [26]</i>	2021				*	*					*						*	*			*						*							

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																					Ecological productivity				Economic productivity				Social productivity				Cultural productivity			
		JA	BC	RR	CP	Em.	E	D	C	QN	QL	MM	1	2	3	4a	4b	4c	BD	LH	WH	AC	FP	W	L	CV	FS	HH	PL	G	TK	BV	IV	RV		
Gangadhara et al. [27]	2005				*	*					*					*								*	*											
Geekiyanage et al. [28]	2013	*						*	*		*				*	*			*																	
Gilliland et al. [29]	2013	*				*					*		*		*	*							*													
Godage et al. [30]	2021				*	*				*		*				*						*														
Gunarathna et al. [31]	2014	*				*				*				*								*	*				*									
Gunasekara et al. [32]	2023	*				*					*	*										*	*													
Hemachandra et al. [33]	2022		*			*				*				*	*		*		*	*		*	*			*		*								
Hemachandra et al. [34]	2021	*				*				*			*												*											
Herath et al. [35]	2018		*			*					*					*			*			*	*													
Hettiarachchi et al. [36]	2021				*	*				*			*						*																	
Imbulana et al. [37]	2020	*				*				*					*								*													
Itakura [38]	1995			*		*				*					*								*													
Itakura et al. [39]	1993			*		*				*					*								*													
Izumi et al. [40]	2021	*				*				*				*									*		*											
Jayakody et al. [41]	2004	*				*				*					*								*													
Jayasena et al. [42]	2011	*				*				*						*							*													
Jayasiri et al. [43]	2023	*				*					*			*									*													
Jayasuriya et al. [44]	2017	*				*					*					*	*			*																
Jayathilaka et al. [45]	2021				*	*					*	*					*									*	*									
Jayatilaka et al. [46]	2001			*		*				*					*								*													
Jayatilaka et al. [47]	2003	*				*				*					*								*													
Kanthilanka et al. [48]	2023	*				*					*					*	*						*			*										
Karalliyaddaa et al. [49]	2023	*				*					*					*			*					*												
Kariyawasam [50]	1989	*				*				*			*	*								*														
Kariyawasam et al. [51]	2021	*				*				*			*							*			*													
Kekulandala et al. [52]	2020	*						*	*		*			*		*	*						*	*				*								

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Kekulandala et al. [53]	2023	*				*					*		*		*	*						*	*					*							
Köpke et al. [54]	2019	*				*					*		*		*	*							*				*								
Kowshayini et al. [55]	2023	*				*				*				*						*			*												
Kulasinghe et al. [56]	2022	*				*				*				*						*			*	*	*										
Kumari et al. [57]	2018	*				*				*				*			*						*												
Kumari et al. [58]	2019	*				*				*				*			*					*	*												
Kumari et al. [59]	2013	*				*				*				*			*					*	*												
Lasanthika et al. [60]	2021				*	*				*					*		*			*					*										
Madduma Bandara [61]	1985		*					*	*		*					*	*			*	*		*	*											
Madduma Bandara [62]	1995				*				*		*					*	*				*		*					*							
Mahatantila et al. [63]	2008	*				*				*				*		*		*		*		*		*											
Mahatantila et al. [64]	2010		*			*				*				*		*		*			*		*												
Marambe et al. [65]	2012		*				*	*			*		*						*				*												
Matsuno et al. [66]	2003	*				*				*					*								*	*											
Melles et al. [67]	2020	*							*		*						*		*		*							*							
Menike et al. [68]	2021				*	*				*			*								*		*												
Molden et al. [69]	1999	*							*			*			*								*	*											
Murray et al. [70]	2000			*		*					*	*	*									*													
Nanthakumaran et al. [71]	2022	*				*					*			*								*	*												
Nayanathara et al. [72]	2021				*	*				*		*										*				*									
Panabokke et al. [73]	2002		*					*	*		*					*	*			*		*	*												
Panabokke et al. [74]	2008			*		*				*				*						*		*													
Paranage [75]	2018	*				*				*			*									*	*												
Perera et al. [76]	2020				*	*				*			*									*		*		*		*							
Perera et al. [77]	2020	*				*					*	*	*						*			*	*												

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Perera et al. [78]	2021	*				*					*		*							*			*					*								
Perera et al. [79]	2021	*				*				*			*												*			*								
Ranasinghe et al. [80]	2023	*				*					*		*									*			*			*								
Ratnayake et al. [81]	2023	*					*			*			*									*		*	*											
Ratnayake et al. [82]	2022	*				*					*		*			*	*		*	*	*									*		*	*			
Ratnayake et al. [83]	2021	*				*					*				*	*			*	*	*					*			*	*						
Ratnayake et al. [84]	2023		*				*	*			*		*					*				*				*										
Saase et al. [85]	2020	*				*				*			*										*		*											
Sakthivadivel et al. [86]	1999	*						*			*		*		*								*	*				*	*							
Sakthivadivel et al. [87]	1997			*		*					*		*										*	*				*	*							
Schütt et al. [88]	2013	*				*					*				*	*							*	*												
Seenithamby et al. [89]	2021	*				*					*				*				*					*												
Senadeera et al. [90]	2021				*	*				*				*								*	*	*												
Senaratne et al. [91]	2011			*		*					*			*									*													
Sewwandi et al. [92]	2023	*				*				*								*			*															
Shannon et al. [93]	2007	*							*		*				*	*						*	*	*	*	*		*								
Shinogi et al. [94]	1998				*	*				*					*								*													
Silva et al. [95]	2021				*	*					*		*													*	*									
Sirimanna et al. [96]	2021	*				*				*					*							*	*													
Sirimanna et al. [97]	2022	*				*					*		*	*	*	*			*			*														
Sitisekara et al. [98]	2021				*	*					*		*													*	*									
Sulochana et al. [99]	2021				*	*				*				*						*			*													
Thilakarathne et al. [100]	2018				*	*				*				*						*		*		*												
Thilakasiri et al. [101]	2015	*				*					*		*		*					*																
Vidana Gamage et al. [102]	2021				*	*				*		*			*				*																	

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<i>Vidanage et al. [103]</i>	2022		*					*	*		*						*				*	*	*		*											
<i>Weerahewa et al. [104]</i>	2022	*				*					*						*					*		*												
<i>Welgama et al. [105]</i>	2012	*				*					*				*							*	*													
<i>Wickramasinghe et al. [106]</i>	2023	*				*					*	*								*					*	*										
<i>Wijekoon et al. [107]</i>	2016				*	*					*					*	*			*		*	*	*												
<i>Wijesundara et al. [108]</i>	2013	*				*				*								*			*		*					*								
<i>Wijesundara et al. [109]</i>	2014	*				*				*						*	*			*		*	*					*								

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