

Appendix 3: Overview of all reported sustainability problems

	Reported sustainability problems		
	Resources and environment	Socio-economic	Governance
1998 Minae et al.	Low soil fertility	Diminishing and fragmented uneconomic farm holdings	
2000 Dedrick et al.	Lower yields and severe pest infestations	High water costs and low commodity prices	
2003 Carruther Tinning			Failing adaptive management due to lack of data from monitoring
2004 Oettle et al.	Land degradation from overgrazing	Poverty and poor market access	Inadequate government services to community, isolating and disadvantaging policies
2005 Breu et al.	Resource degradation through overuse of a growing population	Dependent on external relief aid, growing inequalities (espec. Gender) and impoverishment	Decaying public infrastructure, insufficient energy-supply, lack of technical equipment, deficiencies in legislation and state administration
2007 Abang et al.	Yield losses through pest infestations		
2007 Butler and Mazur	Resourced degradation	Poverty and poor market access	Difficult or non existent access to government services
2007 Termeer Kessener			Path dependency and mismanagement in the governance system
2008 Cabrera et al.	Nitrate pollution in groundwater		
2008 Dodd et al.	Water pollution from livestock, declining biodiversity, soil degradation	Pressure from international markets and unsustainable price support	
2009 Bagshaw Lindsay	Water pollution from banana production	Financial pressure through declining margins and destruction through tropical cyclones	
2012 Monzote et al.	Soil compaction and degradation through heavy machinery and intense cultivation	Deterioration of farm infrastructure and lack of finances to invest in specialised production	Highly specialized crop systems suffer from poor management of natural resources, marginalisation of small-scale farmers
2012 Schwilch et al.	Desertification		
2013 a-Allan et al.	Nitrate pollution in groundwater		
2013 b-Allan et al.	Declining soil productivity		
2013 b-Guzman et al.		No own agroindustry	Structural changes with degrading agrarian institutions, power concentration
2014 Schwilch et al.	Desertification		
2014 Tisenkopfs et al.	Competition over land with biogas production	Rising land prices	Low market integration
2015 Akpo et al.			Low seedling quality due to mismanagement of producers

2015 Andersson	Soil degradation	Gender inequalities in accessing land and other productive resources	Poor infrastructure, weak social security systems, low credit availability, fluctuating food prices
2015 Jacobi et al.	Soil degradation, loss of arable land, primary forest and biodiversity due to monocultures		
2015 Levain et al.	Water pollution from livestock		
2015 Soste et al.	Drought and declining availability of irrigation water		