APPENDIX 1

Table A1. Identified PES definitions.

Author and year	Definition	Publication identified in the literature review (L) or via snowball system (S)
Wunder (2005:3)	"(1) […] voluntary transaction[s] where (2) a well-defined service (or a land-use likely to secure that service) (3) is being 'bought' by a (minimum one) ES buyer (4) from a (minimum one) ES provider (5) if and only if the ES provider secures ES provision (conditionality)"	S
Corbera et al. (2007:366)	"MES and PES consist of transferring economic resources from providers to consumers of ecosystem services so that the former benefit economically while the latter receive the right to use the resources provided by the service in question. The difference between MES and PES resides in their underlying institutional framework. […] PES are not actual markets where ecosystem services are sold to service buyers. The commodity is ill-defined, and, in most cases, governments play an intermediary role by mobilizing resources from consumers to a government fund, which then distributes financial resources to ecosystem-service stewards at a pre-established price"	S
Ferraro (2008:810)	PES "generally have two common features. First, they are voluntary. Second, participation involves a contract between the conservation agent and the landowner. The landowner agrees to manage an ecosystem according to agreed-upon rules and receives a payment (in-kind or cash) conditional on compliance with the contract"	S
Sommerville et al. (2009:2)	"approaches that aim to (1) transfer positive incentives to environmental service providers that are (2) conditional on the provision of the services, where successful implementation is based on a consideration of (1) additionality and (2) varying institutional contexts"	L
Milder et al. (2010:1)	"Payment for ecosystem services (PES) is a market-based approach to environmental management that compensates land stewards for ecosystem conservation and restoration. [...] We define PES to include direct payments from ecosystem service beneficiaries to land stewards, as well	S

	as indirect payments earned through eco-certified production (Food and Agriculture Organization 2007)"	
Muradian et al. (2010:1205)	"a transfer of resources between social actors, which aims to create incentives to align individual and/or collective land use decisions with the social interest in the management of natural resources. Such transfers (monetary or non-monetary) are embedded in social relations, values and perceptions, which are decisive in conditioning PES design and outcomes"	S
Karsenty (2011:1)	"a payment to an agent for services provided to other agents (wherever they may be in space and time) by means of a deliberate action aimed at preserving, restoring or increasing an environmental service agreed by the parties. PES therefore result from a voluntary agreement between parties, in other words they are based on contracts that are explicit or implicit (oral agreements), and which set out the service expected and the corresponding payments, as well as for how long the service must be provided"	S
Porras et al. (2013:7)	"A transaction in which a supplier or seller of the ecosystem service is responding to the offer of compensation from a single or multiple beneficiaries (NGO, private party, local or central government entity) and/ or a beneficiary separate from the seller which is not a central government entity, compensation is conditional upon the land management practices specified by the program, and the voluntary component is only attached to the supply-side of the transaction in that the provider 'voluntarily' enters in to the contract."	S
Tacconi (2012:35)	"PES scheme is a transparent system for the additional provision of environmental services through conditional payments to voluntary providers. […] PES schemes are essentially instruments to maintain or recreate the supply of ES through the provision of incentives"	L
Smith et al. (2013:13)	"[…] PES is used to describe schemes in which the beneficiaries, or users, of ecosystem services provide payment to the stewards, or providers, of ecosystem services. In practice, PES often involves a series of payments to land or other natural resource managers in return for a guaranteed flow of ecosystem services (or, more commonly, for management actions likely to enhance their provision) over-and-above what would otherwise be provided in the absence of payment.	S

	Payments are made by the beneficiaries of the services in question, for example, individuals, communities, businesses or government acting on behalf of various parties”	
Engel (2015:133)	“a positive economic incentive where environmental service (ES) providers can voluntarily apply for a payment that is conditional either on ES provision or on an activity clearly linked to ES provision”	L
Wunder (2015:241)	“(1) voluntary transactions (2) between service users (3) and service providers (4) that are conditional on agreed rules of natural resource management (5) for generating offsite services”	L
Davies et al. (2018:160)	“‘a transfer of resources between ES buyers and sellers that aims to improve provision of ES for the benefit of society and the environment’ The following principles apply: • Voluntariness – stakeholders ideally enter into a PES agreement on a voluntary basis, however governments may act on their behalf, or regulate involvement, if necessary. • Payment source – payments are made by the beneficiaries of ES (citizens, businesses, or governments acting on their behalf). This includes those benefitting from reputational enhancement or actions that compensate for (unregulated) environmental harm. • Conditionality – payment is conditional on the delivery of quantified ES, or on the implementation of robust land use practices proven to deliver ES benefits. • Additionality – ES benefits (or proxy land use practices) are over- and-above the baseline (or business-as-usual) level, and do not lead to the loss or degradation of ES elsewhere”	L