S3 Table. Evaluation scores of the 60 protected area management plans as assigned in the plan quality evaluation process.

	BR Flusslandschaft Elbe	BR Karstlandschaft Südharz	BR Niedersächsische Elbaue	BR Schaalsee	BR Schwäbische Alb	BR Vessertal-Thüringer Wald	Ackerflur bei Ulmet	Bayrischer Bodensee	Binnendünen Nordoe	Binnensalzstelle Rethriehen	Blumberger Wald	Borntal, Feuchtgebiet und Heide bei Allstedt incl. Erweiterungsflächen	Drahendorfer Spreeniederung	Feuchtgebietskomplexe nördlich Itzny	Flohatal	Heide und Heideweiher auf der Rekumer Geest	Kühkopf-Knoblochsaue	Lauter und Eisenbach	Lußhardt	Magerwiesen Raubach	Mahlpfuhler Fenn	Mattheiser Wald	Mindelquellgebiet	Nordseite der Wagrischen Halbinsel	Nordwestvogtländische Teiche	Oberer Hotzenwald	Oldenburger See	Orsfeld	Pfeifengraswiese bei Günthersdorf	Randowhänge bei Schmölln	Randowtal bei Grünz und Schwarze Berge	Randow-Welse-Bruch	Rothenberg	Sangwelher	Sebnitzer Wald	Trauf der südlichen Frankenalb	Unterer Niederrhein	Warnowtal	Wismarbucht	NLP Bayrischer Wald	NLP Hainich	NLP Harz	NLP Kellerwald- Edersee	NLP Müritz	NLP Sächsische Schweiz	NLP Unteres Odertal	NP Am Stettiner Haff	NP Barnim	NP Bayrischer Wald	NP Dübener Heide	NP Habichtswald	NP Hüttener Berge	NP Schlaubetal	NP Schlei	NP Soonwald-Nahe	NP Stromberg-Heuchelberg	NP Südharz	NP Teutoburgerwald	NP Unteres Saaletal	NP Zittauer Gebirge
1 Addressing climate change	0	3	5	0	2	3	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	1	0	0	1	1	3	0	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0
Address climate change and its impacts in situation analysis.	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Address climate change in goal setting.	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Address (ecosystem-based) climate change (management) in strategy design and action planning.	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Address climate change in monitoring and research (monitor changes of climatic factors, biological, ecological and physical aspects of (climate change) impacts and climate change impacts in combination with other threats).	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Ecosystem functionality and resilience	4	5	5	4	4	5	0	0	0	0	0	2	1	0	2	0	3	2	0	0	4	1	2	0	1	0	2	0	0	0	2	0	1	1	2	0	2	0	2	6	7	6	7	6	3	4	2	1	3	3	0	4	0	1	1	1	1	0	0	2
Prioritize higher-order systems (ecosystems) and their processes over lower-order systems (species and life communities)	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	2	2	2	2	2	2	1	0	0	1	0	0	1	1	0	0	0	1	0	0	1
Prioritize target functionality over representation of target patterns (e.g. specific components such as species or life communities)	1	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	2	2	2	2	1	1	1	0	0	1	0	1	0	0	0	0	0	0	1
Refrain from static preservation of species/populations in defined areas	0	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	2	1	0	1	1	0	1	0	0	1	0	1	1	1	0	0	0	0
Manage for high levels of biomass, diversity and network.	2	0	2	1	1	2	0	0	0	0	0	2	0	0	2	0	2	1	0	0	2	1	1	0	1	0	0	0	0	0	0	0	0	1	1	2	0	2	0	0	1	1	1	1	1	0	1	0	1	2	0	1	0	0	0	0	0	0	0	0
3 Adequate spatial dimension	7	2	5	6	3	5	1	0	2	0	0	2	3	2	4	0	4	0	0	0	2	0	1	0	0	0	2	0	0	3	2	0	3	0	2	0	2	1	3	7	6	5	6	5	2	6	2	2	5	4	2	6	3	2	2	2	3	1	0	2
Apply ecoregional approaches and delimit spatial management scope according to ecological boundaries of functional size.	2	0	1	1	1	1	1	0	0	0	0	1	0	0	1	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	0	0	0	1	0	0	2	1	0	0	0	1	0	0	2
Select a spatially continous management scope and avoid disconnection and cluster structure favouring direct connection to nearby conservation sites or functionally relevant eocsystems.	2	1	2	2	1	2	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	1	2	2	2	2	2	1	1	0	2	1	1	2	1	1	2	2	1	1	0	0
Consider conservation targets within a regional context and let their scale guide the scale of management strategies.	1	0	1	2	1	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1	1	1	1	0	1	1	0	1	0	0	1	0	1	0	0	0	0	0
Consider and manage adjacent ecosystems/regions as areas of influence.	2	1	1	1	0	1	0	0	1	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	1	1	2	2	1	2	2	1	2	0	0	1	1	0	1	1	2	0	0	0	0	0
4 Adequate time dimension	1	1	1	3	2	2	0	0	0	0	2	3	0	0	2	1	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2	0	0	0	2	1	0	0	4	0	2	3	4	1	2	0	0	0	0	0	1	1	0	0	0	1	1	0	0
Adopt a long-term perspective in planning and management (>20 years).	1	0	0	1	1	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	1	2	1	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0
Extend strategy design to include future changes in target status.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beside short-term and medium-term activities, also include long-term activities in planning and implementation.	0	1	0	1	1	1	0	0	0	0	1	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	1	1	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0
Assess and account for the long-term impact of planned activities.	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Holistic knowledge management	3	7	6	6	6	6	0	2	2	1	5	1	3	3	4	1	1	0	1	1	2	0	2	3	0	3	0	1	1	5	4	5	1	1	1	3	0	3	7	5	3	4	4	5	2	4	5	4	4	1	3	4	3	3	2	2	3	3	2	2
Constantly keep track and make use of best-available knowledge assessing limits to knowledge, uncertainty and knowledge gaps.	0	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0	0	1	1	1	0	0	1	0	1	0	0	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	2	1	0	1	0	0	0	0
Consider all forms of relevant information including scientific, indigenous and local knowledge and practice.	1	2	1	2	2	2	0	0	1	0	2	1	1	1	1	0	1	0	0	0	1	0	1	1	0	1	0	1	0	2	2	2	1	0	1	1	0	1	2	0	0	1	1	1	0	1	2	1	1	0	1	1	1	1	1	1	1	1	1	0
Consider all relevant sectors of society and (scientific) disciplines in the planning process	0	2	2	2	2	2	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	1	0	0	0	0	0	1	2	2	1	1	1	2	0	1	2	1	1	1	1	2	0	1	1	0	1	1	0	0
Cooperation and knowledge exchange with other organisations, institutions, agencies and conservation projects.	2	2	2	1	1	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	1	0	1	0	0	2	2	1	1	1	2	1	0	1	1	0	0	0	0	0	0	1	1	1	2
6 Systemic and strategic coherence	5	2	6	6	3	4	0	0	1	0	1	2	4	1	3	0	1	0	3	1	2	1	0	0	2	0	1	1	0	4	2	1	2	2	3	1	2	1	2	6	5	6	5	3	4	5	4	2	3	4	1	4	3	2	1	1	4	0	0	2
Consider interaction with adjacent as well as superordinate and subordinate (eco)systems.	1	0	2	2	0	1	0	0	1	0	0	1	1	1	1	0	1	0	1	1	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1	1	0	2	2	1	2	1	1	1	0	0	0	2	1	1	1	0	0	2	0	0	1	
Align conservation goals and targets of different planning levels (systematic vertical nestedness)	2	1	2	2	2	1	0	0	0	0	1	1	2	0	1	0	0	0	1	0	1	1	0	0	1	0	1	0	0	1	1	1	1	1	1	0	0	2	1	2	1	2	1	2	2	1	1	2	0	1	2	1	1	1	1	0	0	0		
Align conservation goals, targets and strategies with other planning units of the same level (horizontal alignment).	2	1	1	1	1	1	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	1	1	1	2	1	0	1	1	2	1	1	0	0	1	0	1	0	0	1	0	0	1
Align conservation goals, targets and strategies with adjacent conservation sites (inter-protected area management).	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0
7 Adaptive management	1	4	0	4	3	1	1	0	3	0	0	3	2	2	3	1	0	0	0	0	1	2	0	0	1	1	0	1	2	0	1	0	0	1	1	0	5	1	4	5	2	3	3	2	0	2	0	1	1	2	1	1	2	0	0	0	3	0	0	1
Adopt an open, cyclic and iterative planning approach with continuous development allowing for flexibility and early action.	0	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0
Establish a strong systematic monitoring system aligning it along conservation targets and goals with the aim of measuring goal achievement.	1	1	0	1	1	1	0	0	1	0	0	2	1	0	1	1	0	0	0	0	1	1	0	0	1	1	0	1	0	0	0	0	0	1	1	0	2	0	1	2	1	1	1	1	0	1	0	0	1	1	0	0	1	0	0	0	0	0	0	1
Adapt the choice of conservation targets and goals as well as management activities to changing conditions (e.g., community changes) and goal achievement.	0	1	0	1	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

Monitor and evaluate success of management effectiveness and create learning feedback loops to adapt management.	0	1	0	1	1	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	2	1	1	1	1	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	0
8 Proactive risk management	1	3	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	2	1	0	3	1	1	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0
Adopt the precautionary principle.	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consider (future) risks and vulnerabilities of conservation targets and relevant factors, esp. concerning climate change.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0
Consider plausible futures (scenarios) and trends in goal-setting and strategy development.	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Identify and prioritize robust (no-and low-regret) strategies (those that will be effective in most scenarios).	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Institutional capacity building	4	3	2	4	4	2	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2	1	0	1	0	2	2	0	2	3	2	2	3	2	0	1	0	1	2	2	1	2	0	2	1	1	3	2	0	0
Decentralize planning and management to the lowest appropriate level and ensure clear responisiblities.	2	1	1	2	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2	1	0	1	0	2	1	0	2	2	1	1	2	1	0	1	0	1	1	2	1	1	0	1	1	1	1	2	0	0
Create a transdisciplinary planning and management team with diverse personal resources.	2	2	1	2	2	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	0	0	0	1	0	0	1	0	1	0	0	2	0	0	0
Professionally train staff for climate change and improve research capacities of conservation staff.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ensure training & knowledge update of relevant methodologies and instruments to face climate change in management.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 Public accountability and acceptance	4	7	5	6	6	6	1	0	0	1	1	0	1	1	2	0	1	0	1	0	1	0	1	2	1	1	1	1	1	1	2	1	1	0	0	2	2	1	6	4	3	5	3	3	4	2	4	2	4	3	2	4	2	4	3	4	6	4	4	3
Involve the public (esp. land users and stakeholders s.str.) in management and planning, (e.g. plan was written with participation of public).	0	2	2	2	2	2	0	0	0	1	1	0	1	1	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	2	1	0	0	0	2	1	1	2	1	1	1	1	1	1	1	1	1	1	0	1	2	1	1	1	1	2	2	2	0
Regularly report on the state of the conservation site and its surroundings, on ongoing and planned management activities and their implications to the public.	2	1	1	2	1	2	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	1	1	1	1	1	2	0	1	0	1	1	0	1	1	1	0	1	2	1	1	1
Actively increase and ensure acceptance and support through specific strategies (like local product marketing, tourism marketing, monitoring by local population...).	2	2	2	2	2	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	2	1	1	1	1	2	1	1	2	1	1	0	2	2	2	2	1	1	2
Inform the public about climate change and its implications on local, regional and national and international level and about efforts to mitigate and adapt to climate change, ecosystem-based adaptation and climate management.	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
11 Matrix and stakeholder management	4	6	6	5	5	6	2	0	0	0	0	1	0	0	2	0	1	0	1	0	1	0	1	1	2	0	1	1	1	1	1	0	1	0	1	1	1	0	2	3	3	2	3	3	2	2	4	1	1	0	1	4	3	3	3	2	3	1	2	2
Manage beyond the borders of the conservation site and within a regional context.	2	1	2	2	2	2	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	2	2	1	2	2	1	1	2	0	0	0	0	1	1	1	1	1	1	0	1	1
Cooperate with land users and stakeholders in- and outside the site's borders and concert strategies.	2	2	2	2	2	2	1	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	1	2	0	1	1	0	1	1	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	2	1	1	0	1	2	2	2	2	1	2	1	1	1
Consider current and potential future climate change adaptation activities of land users and stakeholders in and around conservation site.	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Engage land users and local stakeholders in a cooperation on ecosystem-based climate management.	0	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General information of plan																																																												
Publication year of plan	2006	2011	2009	2003	2012	2006	2008	2012	2011	2006	2012	2006	2012	2011	2005	2011	2011	2012	2012	2009	2012	2010	2012	2012	2010	2010	2010	2009	2011	2012	2011	2013	2013	2011	2011	2011	2011	2011	2006	2010	2010	2011	2008	2003	2007	2010	2008	2009	2009	2006	2012	2010	2004	2010	2008	2010	2012	2010	2007	2011
Size of protected area (ha)	342848	30034	56760	30257	85269	17081	10,5	807	392	9	244	381	566	607	1814	23	2378	170,62	6484	16	1210	447	83,5	317	371	3114	123	1110	1	257	697	3714	113	78	240	4289	25809	4400	23828	24250	16000	24732	5724	32199	9350	10418	53783	74900	278000	75300	47400	21967	22700	49792	73500	33003	26700	271100	40800	13340
Protected area category (BR = biosphere reserve, N2000 = Natura 2000 site, NLP = national park, NP = nature park	BR	BR	BR	BR	BR	BR	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	N2000	NLP	NLP	NLP	NLP	NLP	NLP	NLP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Federal State	ST, MV, BB, NI, SH	ST	NI	MV	BW	TH	RP	BY	SH	HB	BB	SN	BB	BW	SN	HB	HE	HE	BW	HE	ST	RP	BY	SH	SN	BW	SH	RP	ST	BB	MV	BB	SL	RP	SN	BY	NRW	MV	MV	BY	TH	NI, SN	HE	MV	SN	BB	MV	BB	BY	SN, ST	HE	SH	BB	SH	RP	BW	TH	NW	ST	SN