APPENDIX I Aptitude variables (n=34), indicating the layer type and the digital source. It also indicates the reason for their inclusion, their impact area, their condition to be fulfilled to obtain the maximum, minimum and exclusion threshold values, and the references supporting this data. Variables are classified according to their relationship with: (a) wind (no. 1 to 5), (b) natural spaces and biodiversity (no. 6 to 18) and (c) current land uses, historical-cultural sites and infrastructures (no. 19 to 34).

No.	Aptitude variable/layer	Layer type	Download or digitisation sources (library)	Reason for inclusion	Condition for Maximum Aptitude value	Condition for Minimum Aptitude value	Condition for Exclusion threshold	References
1	Distance to already installed wind turbines	Vectorial, point	FDJCC, 2021b	Turbulence generation in the vicinity of its blades	> 1200 m	200 m	Presence and buffer ≤ 200 m	Baban & Parry, 2001; Manwell et al., 2010; Díaz-Cuevas et al., 2017; McKenna et al., 2022; Martínez-Martínez et al., 2023
2	Fraction of tree canopy cover in forest environments	Vectorial, polygon	MITERD, 2023b	Increased irregular wind turbulence. Poorer access for maintenance. Periodic renewal of forest tracks required	< 20 %	80 %	≥ 80 %	Baban & Parry, 2001; Mentis et al., 2015
3	Altitude	Raster, 5 x 5 m	JCYL, 2023b	Very high elevations are associated with higher transport and fuel costs and insufficient air density, pressure and temperature (inefficiency). Generally associated with greater runway opening required. Sometimes higher elevations have islands of threatened vegetation	< 1500 m	2000 m	≥ 2000 m	Baban & Parry, 2001; Gass et al., 2013; Atici et al., 2015; Noorollahi et al., 2016; Martínez-Martínez et al., 2022; McKenna et al., 2022; Zahedi et al., 2022
4	Slope	Raster, 5 x 5 m	JCYL, 2023b	Related to the surface turbulence of the blades. Also with the construction of tracks to transport the wind turbines	< 3° (5%)	20° (36%)	≥ 20° (36%)	Baban & Parry, 2001; Molina-Ruiz & Tudela-Serrano, 2008; Van-Haaren & Fthenakis, 2011; Al-Yahyai et al., 2012; Latinopoulos & Kechagia, 2015; Höfer et al., 2016; Rezaian & Jozi, 2016; Martínez-Martínez et al., 2022; McKenna et al., 2022; Asadi et al., 2023; Yildiz, 2024
5	Average annual wind speed at hub height (100 m)	Raster, 50 x 50 m	Lorente-Plazas et al., 2012; Aymamí et al., 2016; CENER, 2023; Global Wind Atlas, 2023	Related to producible energy	> 7 m/s	3 m/s	≤ 3 m/s	Krewitt & Nitsch, 2003; Ramachandra & Shruthi, 2005; Aymamí et al., 2011; Kishore & Priya, 2013; Latinopoulos & Kechagia, 2015; Mentis et al., 2015; Cristea & Jocea, 2016; Höfer et al., 2016; Dhunny et al., 2019; Zahedi et al., 2022; Yildiz, 2024

6	Distance to singular trees	Vectorial, point	JCYL, 2023b	Conservation of emblematic or singular trees	> 300 m	50 m	Presence and buffer ≤ 50 m	Jasone & Iriarte, 2018
7	Distance from critical conservation areas of the Cantabrian Capercaillie Recovery Plan	Vectorial, polygon	JCYL, 2023b	Protection of the Cantabrian capercaillie (*Tetrao urogallus cantabricus*), the study area being its southernmost spur	> 100 m	0 m	Presence	MITERD, 2020; Castilla y León, 2022
8	Distance to Important Bird and Biodiversity Conservation Areas of Spain	Vectorial, polygon	Infante et al., 2011; MITERD, 2023a	Ecosystem protection. Sensitivity of avifauna to noise and collisions. Consideration of birds as an 'umbrella' indicator for many species and habitats	> 100 m	0 m	Presence	Sliz-Szkliniarz & Vogt, 2011; Díaz-Cuevas et al., 2017; MITERD, 2020; Pérez-García, 2021; SEO/BirdLife, 2023
9	Distance to the Cantabrian Ecological Corridor	Vectorial, line	WWF/Adena Spain, 2018	Protection of the territorial interconnection of fauna between Natura 2000 sites and noise protection	> 1000 m	500 m	Presence and buffer ≤ 500 m	Yue & Wang, 2006; Ramírez-Rosado et al., 2008; Sliz-Szkliniarz & Vogt, 2011; WWF/Adena Spain, 2018; MITERD, 2020; MITERD, 2021; SEO/BirdLife, 2023
10	Presence of endangered and/or protected flora of Castilla y León	Vectorial, polygon (UTM 1 x 1 km grids)	Moreno-Saiz et al., 2019; JCYL, 2023b	Protection of Critically Endangered (CR), Endangered (EN) or Vulnerable (VU) plant taxa. For example, *Gyrocaryum oppositifolium* Valdés (CR), endemic to the study area	-	-	Presence on UTM grid	Alfaro-Saiz et al., 2022; 2023
11	Distance to natural and artificial water bodies	Vectorial, polygon	JCYL, 2023b	Obstacle to construction and transport. Preservation of access to wildlife. Ecosystem importance	> 600 m	200 m	Presence and buffer ≤ 200 m	Baban & Parry, 2001; Hansen, 2005; Sliz-Szkliniarz & Vogt, 2011; McKenna et al., 2022; SEO/BirdLife, 2023; Yildiz, 2024
12	Distance to the National Network of Protected Natural Spaces	Vectorial, polygon	JCYL, 2023b	Ecosystem protection (fragmentation), flora, fauna, ecosystem services, recreation, culture. Noise sensitivity	> 5000 m	1000 m	Presence and buffer ≤ 1000 m	Baban & Parry, 2001; Krewitt & Nitsch, 2003; Hoogwijk et al., 2004; Lejeune & Feltz, 2008; Aydin et al., 2010; Aymamí et al., 2011; Sliz-Szkliniarz y Vogt, 2011; Díaz-Cuevas, 2018; MITERD, 2020; Gharaibeh et al., 2021; Castilla y León, 2022; McKenna et al., 2022; Asadi et al., 2023; SEO/BirdLife, 2023

13	Distance to the river network and the public water domain	Vectorial, line	JCYL, 2023b	Obstacle to construction and transport. Preservation of access to wildlife. Ecosystem importance. Riparian flora. Public water legislation (police zone at 100 m from the river)	> 600 m	120 m	Presence and buffer ≤ 120 m	Baban & Parry, 2001; Spain, 2008; Sliz-Szkliniarz & Vogt, 2011; Höfer et al., 2016; Acedo, 2017; Díaz-Cuevas et al., 2017; Sadeghi & Karimi, 2017; Díaz-Cuevas, 2018; MITERD, 2020
14	Distance to Biosphere Reserves	Vectorial, polygon	MITERD, 2023a	Ecosystem protection, flora, fauna, ecosystem services, recreation and recreation, culture and tradition of local populations	> 5000 m	1000 m	Presence and buffer ≤ 1000 m	Baban & Parry, 2001; Krewitt & Nitsch, 2003; Hoogwijk et al., 2004; Lejeune & Feltz, 2008; Aydin et al., 2010; Díaz-Cuevas, 2018; MITERD, 2020; SEO/BirdLife, 2023
15	Distance to areas of high sensitivity in cantabrian capercaillie and cantabrian brown bear recovery plans in Castilla y León regarding wind energy complexes	Vectorial, polygon	JCYL, 2023b	Protection of the Cantabrian capercaillie (*Tetrao urogallus cantabricus*) and the Cantabrian brown bear (*Ursus arctos pyrenaicus*), the study area being its southernmost spur	> 100 m	0 m	Presence	MITERD, 2020
16	Distance to SAC/SCI -Natura 2000 Network-	Vectorial, polygon	JCYL, 2023b	Ecosystem protection, flora, fauna and ecosystem services. Sensitivity to noise. Sensitivity to habitat fragmentation	> 5000 m	1000 m	Presence and buffer ≤ 1000 m	Baban & Parry, 2001; Krewitt & Nitsch, 2003; Hoogwijk et al., 2004; Lejeune & Feltz, 2008; Aydin et al., 2010; Aymamí et al., 2011; Sliz-Szkliniarz & Vogt, 2011; Latinopoulos & Kechagia, 2015; Díaz-Cuevas, 2018; MITERD, 2020; SEO/BirdLife, 2023
17	Distance to SPA -Natura 2000 Network-	Vectorial, polygon	JCYL, 2023b	Ecosystem protection. Sensitivity of avifauna to noise and collisions	> 5000 m	1000 m	Presence and buffer ≤ 1000 m	Hoogwijk et al., 2004; Yue & Wang, 2006; Lejeune & Feltz, 2008; Aydin et al., 2010; Aymamí et al., 2011; Sliz-Szkliniarz & Vogt, 2011; Latinopoulos & Kechagia, 2015; Díaz-Cuevas et al., 2017; Díaz-Cuevas, 2018; SEO/BirdLife, 2023
18	Distance to Scheduled Wetland Areas	Vectorial, polygon	JCYL, 2023b	Ecosystem protection	> 600 m	400 m	Presence and buffer ≤ 400 m	Baban & Parry, 2001; Hansen, 2005; Hötker et al., 2006; Sliz-Szkliniarz & Vogt, 2011

19	Distance to arable areas in irrigated areas	Vectorial, polygon	JCYL, 2023b	Crop potential, local self-economy, prior deployment of irrigation infrastructure	> 150 m	0 m	Presence	Sliz-Szkliniarz & Vogt, 2011; Concepción & Díaz, 2013; Mentis et al., 2015; Díaz-Cuevas, 2018; Castilla y León, 2022; Valera et al., 2022
20	Distance to the road network	Vectorial, line	JCYL, 2023b	Safety distance from breakage accidents and legislated strips. However, their proximity is also valued in order to avoid the construction of new roads	200 - 10000 m	> 10000 m	Presence and buffer ≤ 200 m	Krewitt y Nitsch, 2003; Hansen, 2005; Sliz-Szkliniarz & Vogt, 2011; Atici et al., 2015; Spain, 2015a; Latinopoulos & Kechagia, 2015; Noorollahi et al., 2016; Díaz-Cuevas et al., 2017; Ryberg et al., 2017; Díaz-Cuevas, 2018; Lundquist et al., 2018; McKenna et al., 2022; Asadi et al., 2023; Yildiz, 2024
21	Distance to Archaeological Sites	Vectorial, polygon	JCYL, 2023b	Cultural, scientific and historical protection. High concentration of Roman gold mining remains such as the alluvial exploitation of the Médulas, the castros, the remains of camps or the petroglyphs	> 600 m	200 m	Presence and buffer ≤ 200 m	Molina-Ruiz & Tudela-Serrano, 2008; Latinopoulos & Kechagia, 2015; Pérez-García, 2021
22	Distance to Cultural Heritage Sites	Vectorial, polygon	JCYL, 2023b	Cultural, scientific and historical protection. Public use (visits), safety in the event of shovel breakage, sensitivity to road construction and heavy traffic nearby	> 600 m	150 m	Presence and buffer ≤ 150 m	Baban & Parry, 2001; Lejeune & Feltz, 2008; Molina-Ruiz & Tudela-Serrano, 2008; Sliz-Szkliniarz & Vogt, 2011; Atici et al., 2015; Fernández-Núñez et al., 2015; Díaz-Cuevas et al., 2017; Díaz-Cuevas, 2018; MITERD, 2020; Castilla y León, 2022a
23	Distance to UNESCO World Heritage Sites	Vectorial, polygon	JCYL, 2023b	Cultural, scientific and historical protection	> 600 m	0 m	Presence	Latinopoulos & Kechagia, 2015; MITERD, 2020
24	Distance to the Pilgrims' Routes to Santiago	Vectorial, line	López-Palacios, 2022; CNIG, 2023	Safety for foot traffic. Cultural, tourist and landscape protection. The French route recognised by UNESCO and the local routes recognised by the JCYL	> 500 m	150 m	Presencia y buffer de ≤ 150 m	MITERD, 2020; Pérez-García, 2021
25	Distance to the centre of medium-sized cities	Vectorial, point	JCYL, 2023b	Incompatibility due to residential or public use areas (noise sensitivity, interference from non-satellite AM and FM radio waves, visual impact, occupation of peri-urban recreational area)	> 5000 m	2500 m	Presence and buffer ≤ 2500 m	Baban & Parry, 2001; Lejeune & Feltz, 2008; Fernández-Núñez et al., 2015; Latinopoulos & Kechagia, 2015; International Energy Agency, 2023

26	Presence of areas restricted by current regional and national legislation in relation to wind farms	Vectorial, polygon	JCYL, 2023b	Restrictions declared in regional laws	-	-	Presence	JCYL, 2023b
27	Distance to faults and tectonic contacts	Vectorial, line	JCYL, 2023b	Instability on the construction site	> 500 m	20 m	Presence and buffer ≤ 20 m	Atici et al., 2015; Noorollahi et al., 2016; Díaz-Cuevas, 2018
28	Distance to Sites of Geological Interest	Vectorial, polygon	IGME, 2023	Cultural, scientific and historical protection. Areas with features of importance within the local geological or palaeontological history	> 100 m	0 m	Presence	MITERD, 2020; Pérez-García, 2021
29	Distance to railway lines	Vectorial, line	JCYL, 2023b	Safety distance from accidents and legislated buffer strips. Protection of rehabilitable historic railway tracks (Ponfeblino)	> 500 m	200 m	Presence and buffer ≤ 200 m	Krewitt & Nitsch, 2003; Sliz-Szkliniarz & Vogt, 2011; Atici et al., 2015; Spain, 2015b; Ryberg et al., 2017; Díaz-Cuevas, 2018; McKenna et al., 2022
30	Distance to the National Network of Nature Trails	Vectorial, line	MAPA, 2023	Safety for foot traffic. Cultural, tourist and landscape protection	> 300 m	150 m	Presence and buffer ≤ 150 m	Pérez-García, 2021
31	Distance to regional nature trails	Vectorial, line	JCYL, 2023b	Safety for foot traffic. Promotion of tourism, visitation and the economy of rural areas linked to footpaths	> 200 m	75 m	Presence and buffer ≤ 75 m	Pérez-García, 2021
32	Presence of incompatible non-urban uses (watercourse, reservoir, mining, industrial, waste infrastructure, supply infrastructure, agricultural and/or livestock facility, greenhouse, lake or	Vectorial, polygon	CNIG, 2023	Incompatibility due to already developed land, residential areas (noise sensitivity), constructions, non-developable land	-	-	Presence	Hoogwijk et al., 2004; Sliz-Szkliniarz & Vogt, 2011; Al-Yahyai et al., 2012; Latinopoulos & Kechagia, 2015; Díaz-Cuevas, 2018; McKenna et al., 2022

	pond, artificial water body, road or rail network)							
33	Distance to areas with incompatible urban, rural and residential uses (inner city, urban expansion, urban green zone)	Vectorial, polygon	CNIG, 2023	Incompatibility for residential or public use areas (noise sensitivity, non-satellite AM and FM radio wave interference, shadow-flicker, visual impact)	> 3000 m	500 m	Presence and buffer ≤ 500 m	Krewitt & Nitsch, 2003; Hoogwijk et al., 2004; Hansen, 2005; Yue & Wang, 2006; Nguyen, 2007; Lejeune & Feltz, 2008; Ramírez-Rosado et al., 2008; Aydin et al., 2010; Sliz-Szkliniarz & Vogt, 2011; Al-Yahyai et al., 2012; Ranaboldo et al., 2014; Fernández-Núñez et al., 2015; Latinopoulos & Kechagia, 2015; Díaz-Cuevas, 2018; MITERD, 2020; Castilla y León, 2022; Asadi et al., 2023; International Energy Agency, 2023; Yildiz, 2024
34	Distance to livestock trails	Vectorial, line	JCYL, 2023b	Security for foot traffic	> 200 m	75 m	Presence and buffer ≤ 75 m	Spain, 1995; MITERD, 2020

APPENDIX II Impact variables (n=21), indicating the layer type and the digital source. It also indicates the reason for their inclusion, their impact area, their impact type, and the references supporting this data.

No.	Impact variable/layer	Layer type	Download or digitisation sources (library)	Reason for inclusion	Impact area	Impact type (by value)	References
1	Presence of the projected area in view of the possible declaration of the Médulas-Teleno Geopark	Vectorial, polygon	IEC, 2020	Protection of cultural and archaeological property	Presence	Negative	Sliz-Szkliniarz & Vogt, 2011; Pérez-García, 2021
2	Presence of SEO/BirdLife's sensitive bird areas related to wind energy plants	Vectorial, polygon	SEO/BirdLife, 2023	Protection of birds: large gliders or birds sensitive to habitat alteration (Golden eagle, Montagu's harrier, Hen harrier, Egyptian vulture, Cantabrian capercaillie)	Presence	Negative	SEO/BirdLife, 2023
3	Presence of Very Important Plant Areas	Vectorial, polygon (UTM 10 x 10 km grids)	Alfaro-Saiz et al., 2023	Protection of threatened habitats, vascular vegetation and bryophytes	Presence	Negative	Álvarez et al., 2015; Alfaro-Saiz et al., 2022; Alfaro-Saiz et al., 2023
4	Presence of the total scope of the Cantabrian brown bear and Cantabrian capercaillie recovery plans	Vectorial, polygon	JCYL, 2023b	Protection of the Cantabrian capercaillie (*Tetrao urogallus cantabricus*) and the Cantabrian brown bear (*Ursus arctos pyrenaicus*), the study area being its southernmost spur	Presence	Negative	MITERD, 2020
5	Presence of hunting reserves associated with the presence of the Iberian wolf	Vectorial, polygon	JCYL, 2023b	Protection of the Iberian wolf. The reserves indicate their presence, since until 2021 they were a hunting species present in them, so they are potential areas for projected expansion given their specific resilience	Presence	Negative	Cortés et al., 2021; Spain, 2021
6	Presence of visual catchments (visible territories) from key points of population centres and roads with a visual range of 10 km and taking an	Vectorial, polygon	Radial visibility RLOS from MDE (JCYL, 2023b)	Visual impact, denaturalisation of the environment, consideration of the landscape as a pleasing visual, quality of life	Presence	Negative, neutral	Sevilla-Martínez, 2008; Frolova, 2010; Gómez-Villarino, 2011; Latinopoulos & Kechagia, 2015; MITERD, 2020

	imaginary wind turbine height of 100 m above the surface of the digital elevation model and taking into account the viewing height of 1.70 m						
7	Erosive state value	Vectorial, polygon	MITERD, 2023a	Soil protection	Presence	Negative, neutral	Armstrong et al., 2014
8	Presence of the IUCN Grand Ecological Connector	Vectorial, polygon	IUCN, 2013	Protection of the territorial interconnection of fauna	Presence	Negative	Pérez-García, 2021
9	Presence of current and potential expansion habitat of the Cantabrian brown bear -*Ursus arctos pyrenaicus*-	Vectorial, polygon (UTM 5 x 5 km grids)	Martin et al., 2012; Ezquerra-Boticario & Pinto, 2020	Protection of the Cantabrian brown bear (*Ursus arctos pyrenaicus*), the study area being its southernmost spur	Presence	Negative	Pérez-García, 2021
10	Presence of current habitat, connectivity and areas of potential expansion of the Cantabrian capercaillie -*Tetrao urogallus cantabricus*-	Vectorial, polygon (UTM 5 x 5 km grids)	Quevedo-de-Anta & Bañuelos-Martínez, 2008; Ezquerra-Boticario & Pinto, 2020; González et al., 2021; Pérez-García, 2021	Protection of the Cantabrian capercaillie (*Tetrao urogallus cantabricus*), the study area being its southernmost spur	Presence	Negative	González & Ena, 2011; González et al., 2021; Pérez-García, 2021
11	Presence of Habitats of Community Interest (Habitats Directive 92/43/EEC)	Vectorial, polygon	MITERD, 2023a	Protection of natural or semi-natural areas with a reduced natural distribution, at risk of disappearing or representative of an EU biogeographical region	Presence	Negative	Molina-Ruiz & Tudela-Serrano, 2008; Pérez-García, 2021
12	Probability of landslides on slopes	Raster, 20 x 20 m	JCYL, 2023a	Potential structural damage	Presence	Negative	Armstrong et al., 2014

13	Distance to mountain passes	Vectorial, point	JCYL, 2023b	Presence of transhumant cattle and sheep, a socio-economic driving force. Conservation of biodiversity resulting from grazing	Presence and buffer of 300 m	Negative	Ordaz et al., 2022
14	Distance to the electricity grid	Vectorial, line	CNIG, 2023	Increased profitability of the project the closer it is to the site as no new facilities are required. However, various sources point to a minimum distance, as this could hinder the implementation of the project	Presence and buffers of 0 to 100, 100 to 250, 250 to 1000 and 1000 to 10000 m	Negative, neutral, positive	Hansen, 2005; Sliz-Szkliniarz & Vogt, 2011; Atici et al., 2015; Höfer et al., 2016; Noorollahi et al., 2016; Díaz-Cuevas et al., 2017; Villacreses et al., 2017; Lundquist et al., 2018; Ayodele et al., 2018; Zahedi et al., 2022; Asadi et al., 2023; Yildiz, 2024
15	Value of sensitivity of Gliding Birds of Castilla y León to wind installations	Vectorial, polygon	JCYL, 2023b	Protection of sensitive birdlife	Presence	Negative, neutral	JCYL, 2023b
16	Value of sensitivity of Public Utility Mounts in Castilla y León with respect to wind energy installations	Vectorial, polygon	JCYL, 2023b	Protection of sensitive forests	Presence	Negative	Sliz-Szkliniarz & Vogt, 2011; JCYL, 2023b
17	Wind speed considered by the international standard UNE-EN IEC 61400-1:2020	Raster, 50 x 50 m	CENER, 2023	The available wind turbines allow the use of low wind speeds, but those for which they are prepared according to the standard mean that the performance is assured	> 6 m/s	Positive	Aymamí et al., 2011; Zahedi et al., 2022
18	Presence of High Fire Hazard Zones	Vectorial, polygon	JCYL, 2023b	Potential structural damage	Presence	Negative	Firetrace, 2021
19	Presence of Birdlife Protection Zones against collision and electrocution on high-voltage power lines	Vectorial, polygon	MITERD, 2023a	Collision risks for avifauna. The distribution of high-voltage power lines is related to the installation of wind power plants and must be taken into account in accordance with the precautionary principle	Presence	Negative	MITERD, 2020; Pérez-García, 2021

20	Presence of Important Mammal Areas in Spain	Vectorial, polygon	SECEM, 2016	Protection of passage areas for emblematic or endangered mammals	Presence	Negative	Pérez-García, 2021; SEO/BirdLife, 2023
21	Presence of Low or Exceptional Probability Flood Zones (Return Period T = 500 years)	Vectorial, polygon	MITERD, 2023b	Potential structural damage	Presence	Negative	MITERD, 2020; SEO/BirdLife, 2023

APPENDIX III Hierarchical aptitude matrix. It presents the range of conditions to be fulfilled for each variable to obtain each possible aptitude value. The range of conditions for each variable was discretised into the number of possible aptitude values, between the maximum and the minimum value.

APTITUDE	+31	+30	+29	+28	+27	+26	+25	+24	+23	+22	+21	+20	+19	+18	+17	+16	+15	+14	+13	+12	+11	+10	+9	+8	+7	+6	+5	+4	+3	+2	+1	0	-∞ (-1000)
Distance (m) to the National Network of Protected Natural Spaces	> 5000	4870-5000	4741-4870	4612-4741	4483-4612	4354-4483	4225-4354	4096-4225	3967-4096	3838-3967	3709-3838	3580-3709	3451-3580	3322-3451	3193-3322	3064-3193	2935-3064	2806-2935	2677-2806	2548-2677	2419-2548	2290-2419	2161-2290	2032-2161	1903-2032	1774-1903	1645-1774	1516-1645	1387-1516	1258-1387	1129-1258	1000-1129	≤ 1000
Distance (m) to SPA - Natura 2000 Network-		> 5000	4867-5000	4733-4867	4600-4733	4467-4600	4333-4467	4200-4333	4067-4200	3933-4067	3800-3933	3667-3800	3533-3667	3400-3533	3267-3400	3133-3267	3000-3133	2867-3000	2733-2867	2600-2733	2467-2600	2333-2467	2200-2333	2067-2200	1933-2067	1800-1933	1667-1800	1533-1667	1400-1533	1267-1400	1133-1267	1000-1133	≤ 1000
Distance (m) from critical conservation areas of the Cantabrian Capercaillie Recovery Plan			> 100	97-100	93-97	90-93	86-90	83-86	79-83	76-79	72-76	69-72	66-69	62-66	59-62	55-59	52-55	48-52	45-48	41-45	38-41	34-38	31-34	28-31	24-28	21-24	17-21	14-17	10-14	7-10	3-7	0-3	≤ 0
Distance (m) to SAC/SCI - Natura 2000 Network-				> 5000	4857-5000	4714-4857	4571-4714	4429-4571	4286-4429	4143-4286	4000-4143	3857-4000	3714-3857	3571-3714	3429-3571	3286-3429	3143-3286	3000-3143	2857-3000	2714-2857	2571-2714	2429-2571	2286-2429	2143-2286	2000-2143	1857-2000	1714-1857	1571-1714	1429-1571	1286-1429	1143-1286	1000-1143	≤ 1000
Distance (m) to Important Bird and Biodiversity Conservation Areas of Spain					> 100	96-100	93-96	89-93	85-89	81-85	78-81	74-78	70-74	67-70	63-67	59-63	56-59	52-56	48-52	44-48	41-44	37-41	33-37	30-33	26-30	22-26	19-22	15-19	11-15	7-11	4-7	0-4	≤ 0
Distance (m) to the Cantabrian Ecological Corridor						> 1000	981-1000	962-981	942-962	923-942	904-923	885-904	865-885	846-865	827-846	808-827	788-808	769-788	750-769	731-750	712-731	692-712	673-692	654-673	635-654	615-635	596-615	577-596	558-577	538-558	519-538	500-519	≤ 500
Distance (m) to areas of high sensitivity in cantabrian capercaillie and cantabrian brown bear recovery							> 100	96-100	92-96	88-92	84-88	80-84	76-80	72-76	68-72	64-68	60-64	56-60	52-56	48-52	44-48	40-44	36-40	32-36	28-32	24-28	20-24	16-20	12-16	8-12	4-8	0-4	≤ 0

plans in Castilla y León regarding wind energy complexes																																	
Distance (m) to Scheduled Wetland Areas								> 600	592-600	583-592	575-583	567-575	558-567	550-558	542-550	533-542	525-533	517-525	508-517	500-508	492-500	483-492	475-483	467-475	458-467	450-458	442-450	433-442	425-433	417-425	408-417	400-408	≤ 400
Distance (m) to Biosphere Reserves									> 5000	4826-5000	4652-4826	4478-4652	4304-4478	4130-4304	3957-4130	3783-3957	3609-3783	3435-3609	3261-3435	3087-3261	2913-3087	2739-2913	2565-2739	2391-2565	2217-2391	2043-2217	1870-2043	1696-1870	1522-1696	1348-1522	1174-1348	1000-1174	≤1000
Distance (m) to UNESCO World Heritage Sites										> 600	573-600	545-573	518-545	491-518	464-491	436-464	409-436	382-409	355-382	327-355	300-327	273-300	245-273	218-245	191-218	164-191	136-164	109-136	82-109	55-82	27-55	0-27	≤ 0
Distance (m) to Sites of Geological Interest											> 100	95-100	90-95	86-90	81-86	76-81	71-76	67-71	62-67	57-62	52-57	48-52	43-48	38-43	33-38	29-33	24-29	19-24	14-19	10-14	5-10	0-5	≤ 0
Distance (m) to the river network												> 600	576-600	552-576	528-552	504-528	480-504	456-480	432-456	408-432	384-408	360-384	336-360	312-336	288-312	264-288	240-264	216-240	192-216	168-192	144-168	120-144	≤ 120
Distance (m) to singular trees													> 300	287-300	274-287	261-274	247-261	234-247	221-234	208-221	195-208	182-195	168-182	155-168	142-155	129-142	116-129	103-116	89-103	76-89	63-76	50-63	≤ 50
Distance (m) to natural and artificial water bodies														> 600	578-600	556-578	533-556	511-533	489-511	467-489	444-467	422-444	400-422	378-400	356-378	333-356	311-333	289-311	267-289	244-267	222-244	200-222	≤200
Distance (m) to Cultural Heritage Sites															> 600	574-600	547-574	521-547	494-521	468-494	441-468	415-441	388-415	362-388	335-362	309-335	282-309	256-282	229-256	203-229	176-203	150-176	≤ 150
Distance (m) to Archaeological Sites																> 600	575-600	550-575	525-550	500-525	475-500	450-475	425-450	400-425	375-400	350-375	325-350	300-325	275-300	250-275	225-250	200-225	≤ 200
Distance (m) to the National trail Network in Protected Natural Spaces																	> 300	290-300	280-290	270-280	260-270	250-260	240-250	230-240	220-230	210-220	200-210	190-200	180-190	170-180	160-170	150-160	≤ 150

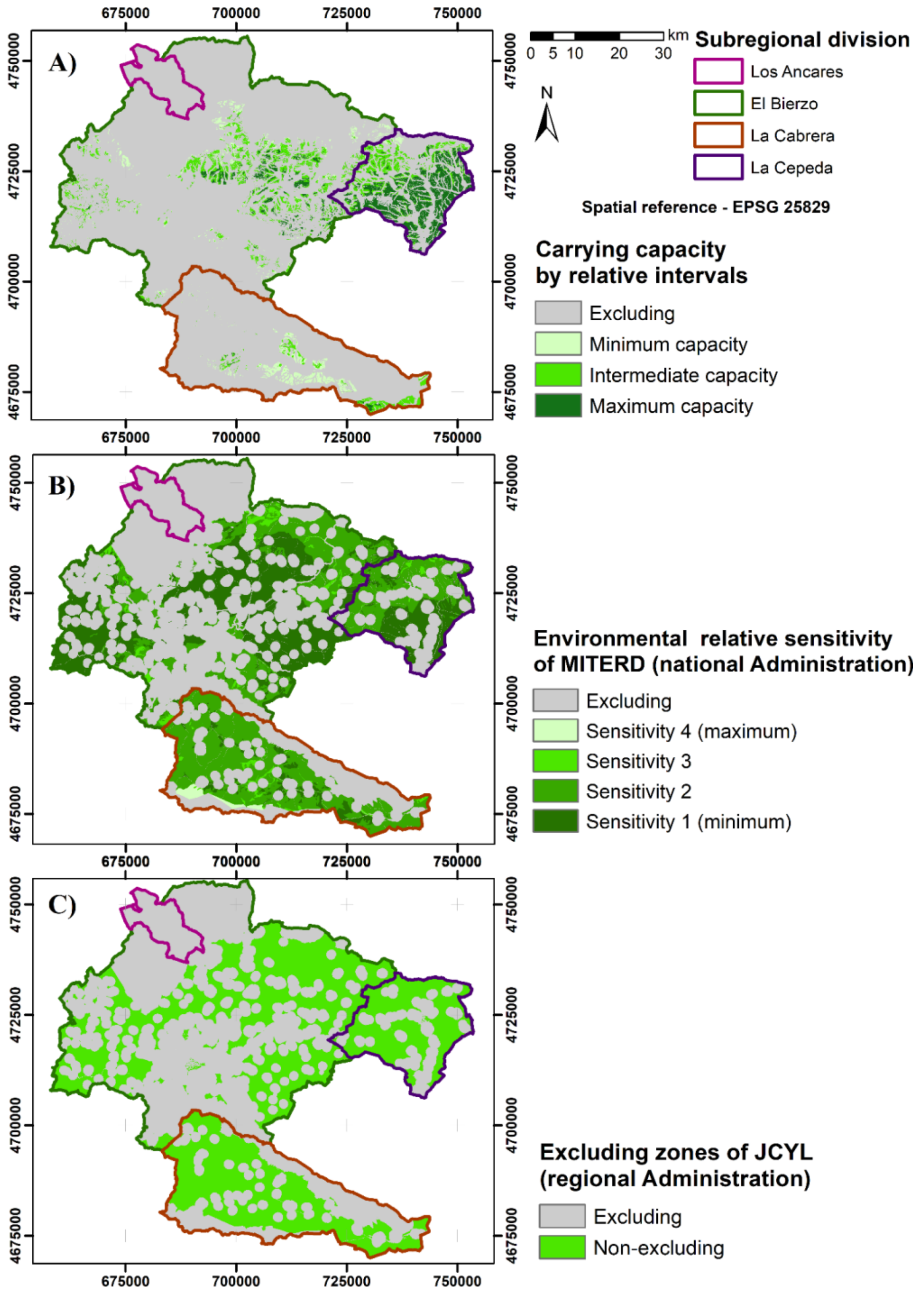
Distance (m) to regional nature trails																		> 200	191-200	182-191	173-182	164-173	155-164	146-155	138-146	129-138	120-129	111-120	102-111	93-102	84-93	75-84	≤ 75
Distance (m) to the Pilgrims' Routes to Santiago																			> 500	473-500	446-473	419-446	392-419	365-392	338-365	312-338	285-312	258-285	231-258	204-231	177-204	150-177	≤ 150
Altitude (m)																				< 1500	1500-1542	1542-1583	1583-1625	1625-1667	1667-1708	1708-1750	1750-1792	1792-1833	1833-1875	1875-1917	1917-1958	1958-2000	≥ 2000
Distance (m) to areas with incompatible urban, rural and residential uses																					> 3000	2773-3000	2545-2773	2318-2545	2091-2318	1864-2091	1636-1864	1409-1636	1182-1409	955-1182	727-955	500-727	≤ 500
Slope (°)																						< 3	3-5	5-6	6-8	8-10	10-12	12-13	13-15	15-17	17-18	18-20	≥ 20
Average annual wind speed (m/s) at hub height (100 m)																							> 7,0	6,6-7,0	6,1-6,6	5,7-6,1	5,2-5,7	4,8-5,2	4,3-4,8	3,9-4,3	3,4-3,9	3-3,4	≤ 3,0
Distance (m) to the centre of medium-sized cities)																								> 5000	4688-5000	4375-4688	4063-4375	3750-4063	3438-3750	3125-3438	2813-3125	2500-2813	≤ 2500
Distance (m) to livestock trails																									> 200	182-200	164-182	146-164	129-146	111-129	93-111	75-93	≤ 75
Distance (m) to arable areas in irrigated areas																										> 150	125-150	100-125	75-100	50-75	25-50	0-25	≤ 0
Distance (m) to already installed wind turbines																											> 1200	1000-1200	800-1000	600-800	400-600	200-400	≤ 200
Fraction of tree canopy cover in forest environments (%)																												< 20	20-35	35-50	50-65	65-80	≥ 80

Distance (m) to faults and tectonic contacts																													> 500	340-500	180-340	20-180	≤ 20
Distance (m) to the road network																														200-10000	-	> 10000	≤ 200
Distance (m) to railway lines																															> 500	200-500	≤ 200
Distance (m) to areas restricted by current regional and national legislation in relation to wind farms																																> 0	≤ 0
Distance (m) to endangered and/or protected flora of Castilla y León																																> 0	≤ 0
Distance (m) to incompatible non-urban uses																																> 0	≤ 0

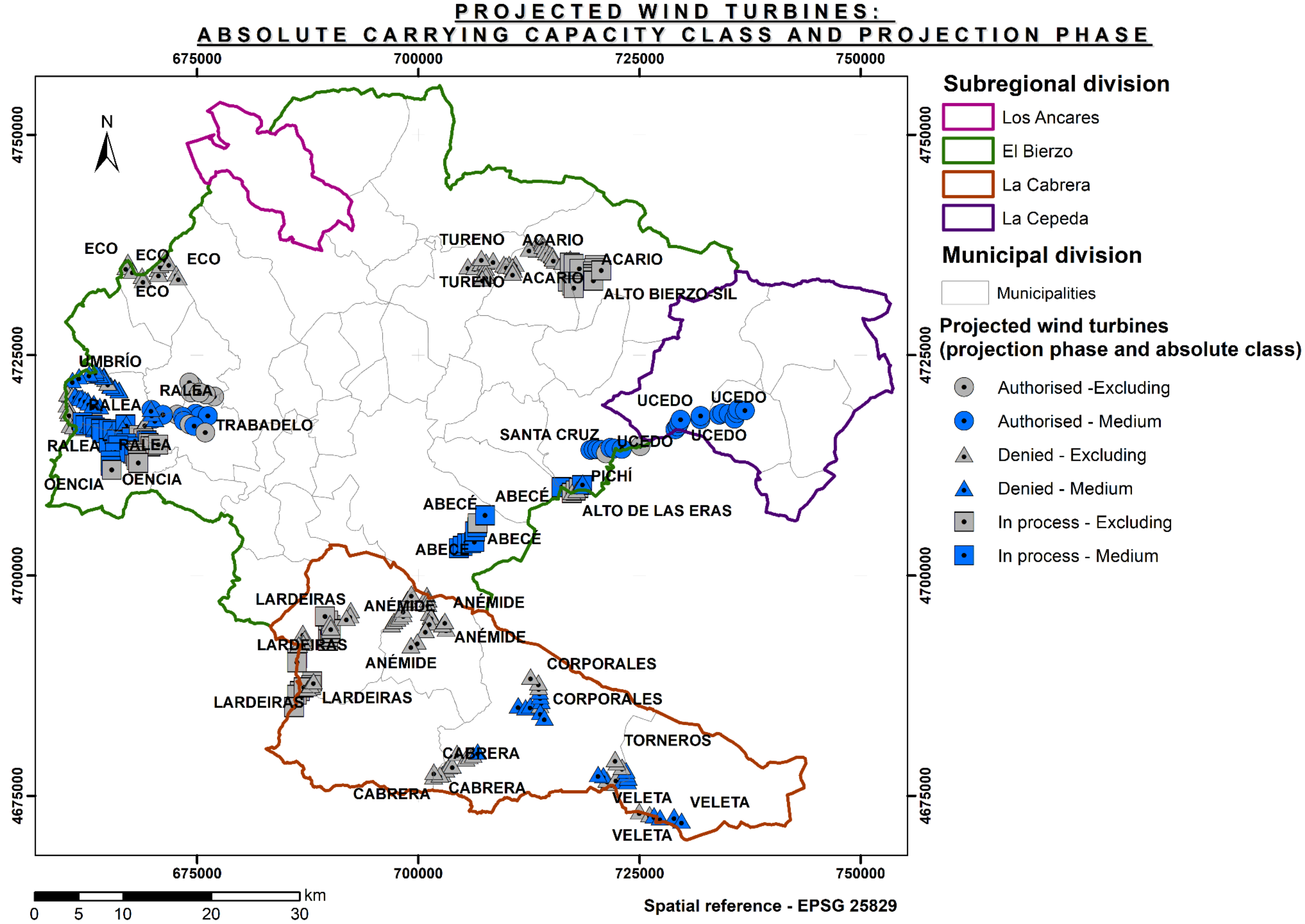
APPENDIX IV Non-hierarchical impact matrix. It presents the range of conditions to be fulfilled for each variable to obtain each possible impact value.

IMPACT	Very high -18	High -14	Medium -11	Low -7	Very low -4	0	Very low +4	Low +7	Medium +11	High +14	Very high +18
Distance (m) to the projected area in view of the possible declaration of the Médulas-Teleno Geopark	-	-	-	-	≤ 0	> 0	-	-	-	-	-
Sensitivity value of SEO/BirdLife's sensitive bird areas related to wind complexes	≥ 6	4; 5	1; 2; 3	-	-	0	-	-	-	-	-
Sensitivity value of Very Important Plant Areas	4; 5	2; 3	1	-	-	0	-	-	-	-	-
Distance (m) to Cantabrian brown bear and Cantabrian capercaillie recovery plans extension	≤ 0	-	-	-	-	> 0	-	-	-	-	-
Distance (m) to hunting reserves associated with the presence of the Iberian wolf	-	-	-	-	≤ 0	> 0	-	-	-	-	-
No. of viewers in visual catchments	-	-	-	≥ 11	1-10	0	-	-	-	-	-
Value of the erosive state	7	6	5	4	3	1; 2; 8	-	-	-	-	-
Distance (m) to the IUCN Grand Ecological Connector	-	≤ 0	-	-	-	> 0	-	-	-	-	-
Distance (m) to the current and potential expansion habitat of the Cantabrian brown bear *-Ursus arctos pyrenaicus-*	≤ 0	-	-	-	-	> 0	-	-	-	-	-
Distance (m) to the current habitat, connectivity and areas of potential expansion of the Cantabrian capercaillie *-Tetrao urogallus cantabricus-*	≤ 0	-	-	-	-	> 0	-	-	-	-	-
Type of Habitat of Community Interest (Habitats Directive 92/43/EEC)	Prioritary	-	Non-priority	-	-	Neutral	-	-	-	-	-
Value of probability of landslides on slopes	5	4	3	2	-	1	-	-	-	-	-
Distance (m) to mountain passes	-	-	-	≤ 300	-	> 300	-	-	-	-	-
Distance (m) to the electricity grid	-	-	≤ 100	-	-	100-250; > 10000	-	1000-10000	250-1000	-	-
Value of sensitivity of Gliding Birds of Castilla y León to wind installations	High	-	Medium	-	-	Low	-	-	-	-	-
Value of sensitivity of Public Utility Mounts in Castilla y León with respect to wind energy installations	-	-	High	Medium	-	Neutral	-	-	-	-	-
Wind speed (m/s) considered by the international standard UNE-EN IEC 61400-1:2020	-	-	-	-	-	< 6	-	≥ 6	-	-	-
Distance (m) to High Fire Hazard Zones	-	-	-	-	≤ 0	> 0	-	-	-	-	-
Distance (m) to Birdlife Protection Zones against collision and electrocution on high-voltage power lines	-	-	≤ 0	-	-	> 0	-	-	-	-	-
Distance (m) to Important Mammal Areas in Spain	-	≤ 0	-	-	-	> 0	-	-	-	-	-
Distance (m) to Low or Exceptional Probability Flood Zones (Return Period T = 500 years)	-	-	-	-	≤ 0	> 0	-	-	-	-	-

APPENDIX V   Visual comparison between zonings: A) Carrying capacity map by relative intervals from this study, B) Environmental sensitivity map (by relative intervals) from MITERD and C) Exclusion map from JCYL.



Absolute carrying capacity class (Excluding and Medium) of each projected wind turbine in its different legal phases of projection (authorised, denied and in process of authorisation).



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