Supplementary material

Title: Mapping environmental crime to characterize human impacts on islands: an applied and methodological research in Canary Islands.

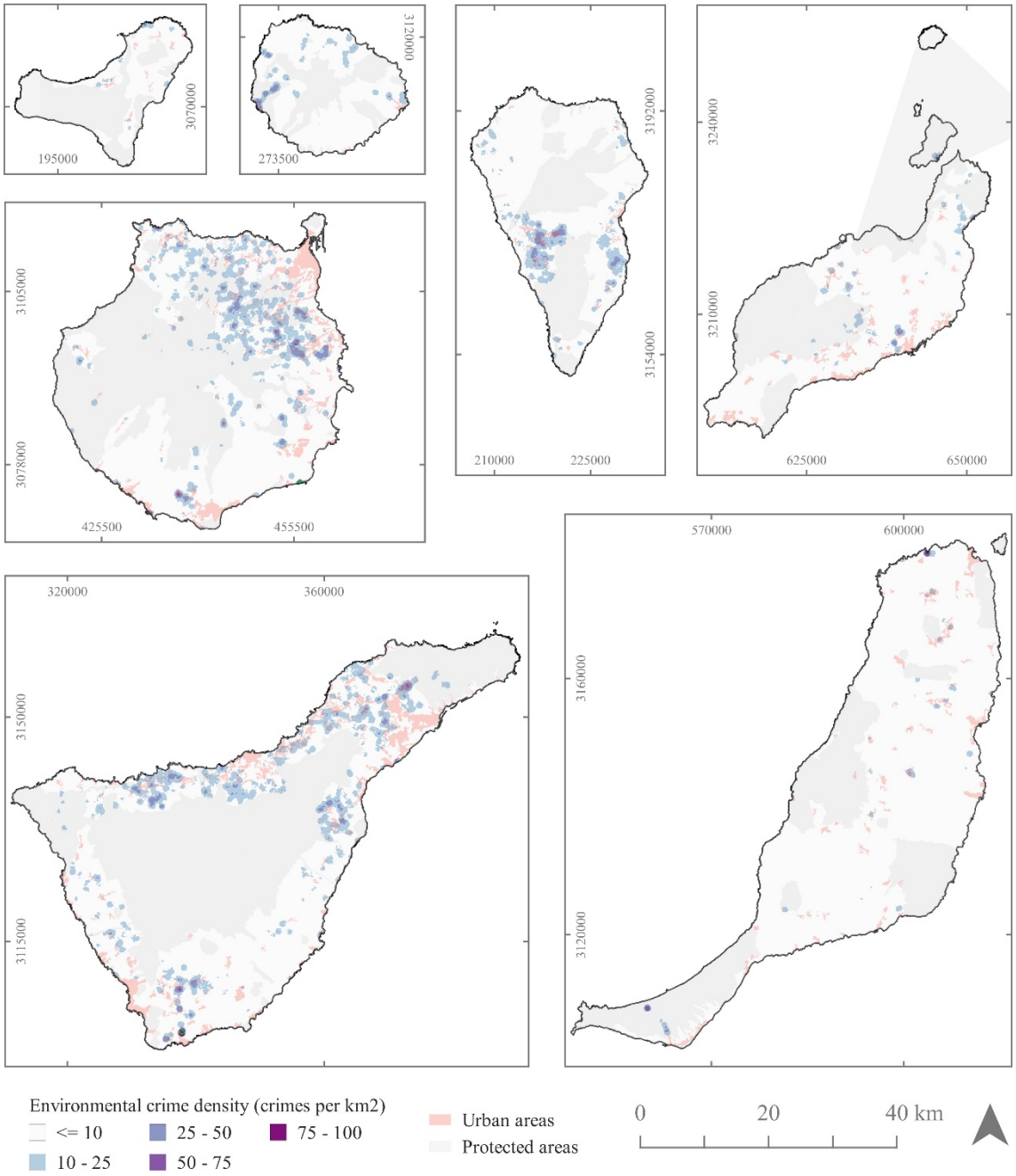

Figure S1. Density of environmental crimes related to illegal buildings for the period between 2001 and 2020.

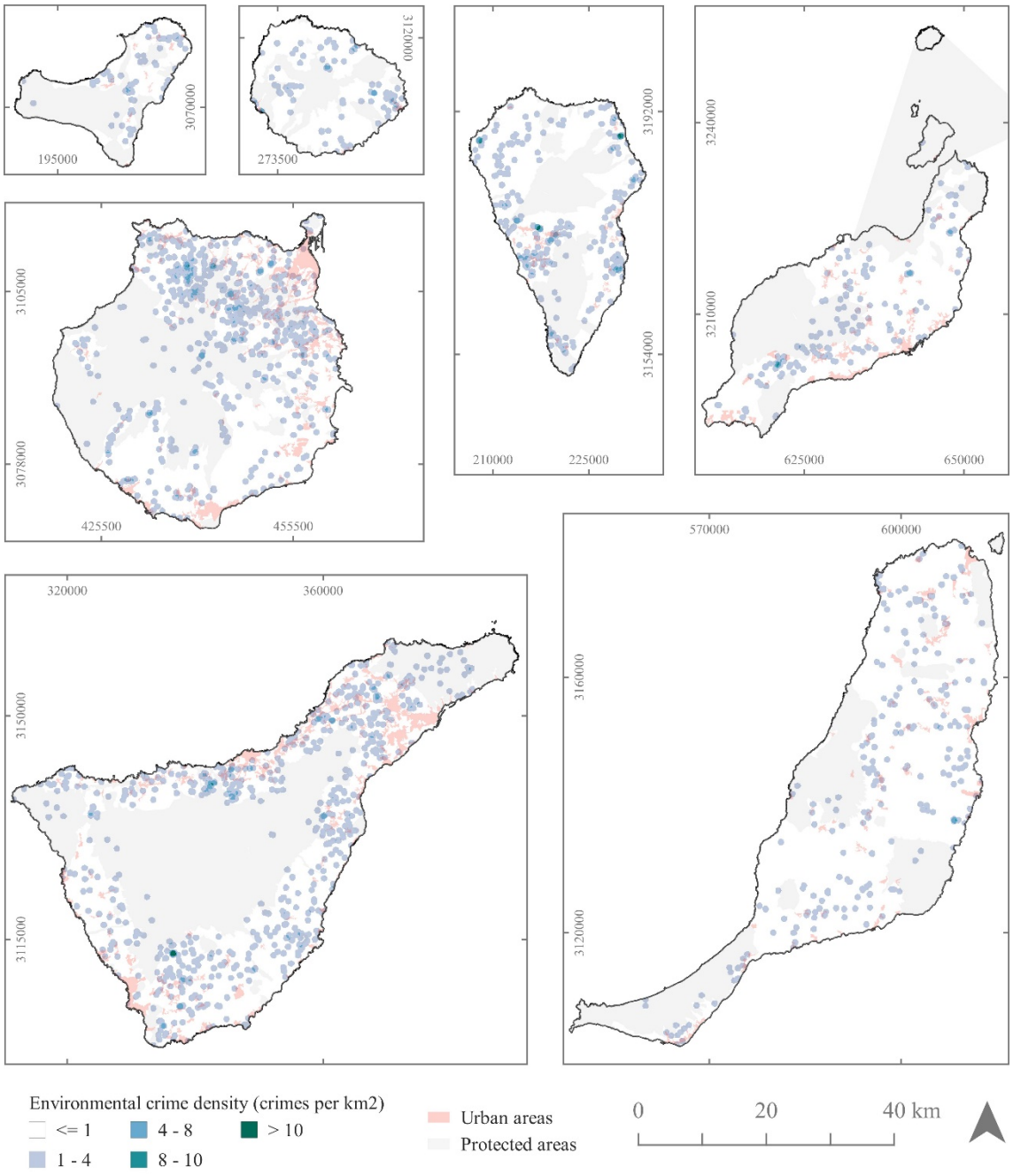

Figure S2. Density of environmental crimes related to minning for the period between 2001 and 2020.

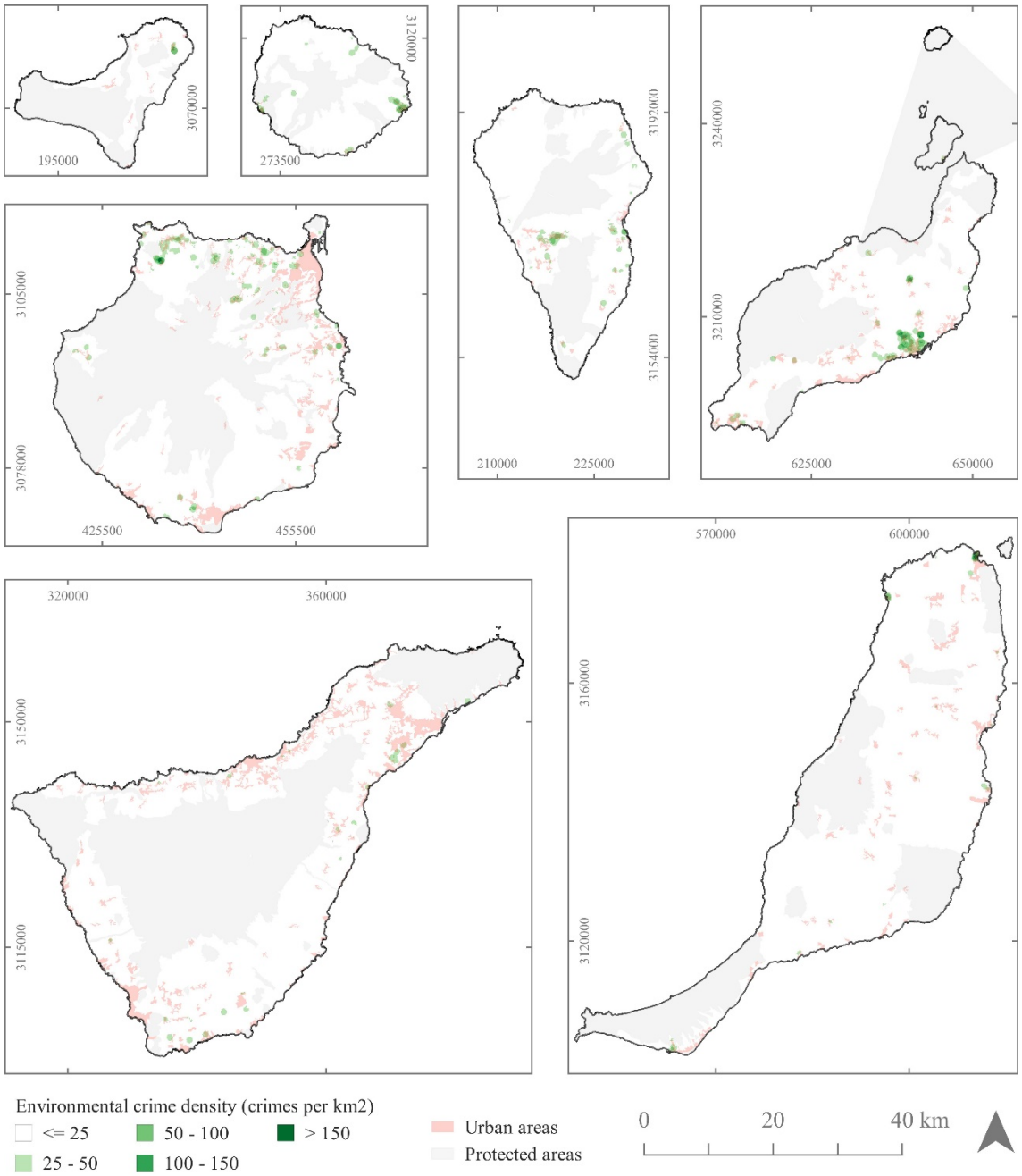

Figure S3. Density of environmental crimes related to solid waste dumping for the period between 2001 and 2020.

Nº	GROUP	ABBR.	DESCRIPTION	TYPE	YEAR	UNITS	SOURCE
1	BASIC	CID	EMPTY FIELD	x	x	x	-
2	BASIC	ID	Identifier	VECTOR	2001-2020	No units	-
3	BASIC	X	X Coordinate	VECTOR	2001-2020	UTM	APMUN
4	BASIC	Y	Y Coordinate	VECTOR	2001-2020	UTM	APMUN
5	BASIC	ANO	File Year	VECTOR	2001-2020	Years	APMUN

6	BASIC	ESTADO	File Status	VECTOR	2001-2020	Open or closed	APMUN
7	BASIC	TIPO	Typology defined by the APMN	VECTOR	2001-2020	Nominal	APMUN
8	BASIC	DESC_TIPO	Description of the typology defined by the APMN	VECTOR	2001-2020	Nominal	APMUN
9	BASIC	COD_MUN	INE municipal code	VECTOR	2001-2020	No units	GRAFCAN
10	BASIC	MUNICIPIO	Municipality	VECTOR	2001-2020	Nominal	GRAFCAN
11	BASIC	ISLA	Island	VECTOR	2001-2020	Nominal	GRAFCAN
12	BASIC	REF_CATAST	Cadastral reference	VECTOR	2001-2020	Nominal	SPANISH CADASTRE
13	BASIC	ASUNTO	Observations	VECTOR	2001-2020	Nominal	APMUN
14	BASIC	ESP_NAT	Affectation to natural space	VECTOR	2001-2020	Yes/No	GRAFCAN
15	BASIC	NEAR_FID	ID of the nearest object	VECTOR	2001-2020	No units	-
16	BASIC	NEAR_DIST	Distance to the nearest object	VECTOR	2001-2020	Meters	-
17	BASIC	TIPO NUEVO	New defined typology	VECTOR	2001-2020	Nominal	APMUN
18	BASIC	CONSTRUCTI	Construction and building	VECTOR	2001-2020	0(no)/1(yes)	APMUN
19	BASIC	VERTIDO_SO	Solid waste	VECTOR	2001-2020	0(no)/1(yes)	APMUN
20	BASIC	VERTIDO_LI	Liquid waste	VECTOR	2001-2020	0(no)/1(yes)	APMUN
21	BASIC	EXTRACCION	Minning and tilling	VECTOR	2001-2020	0(no)/1(yes)	APMUN
22	LAND USE	D_ABAG	Density of abandoned crops	RASTER	2019	Use/km^2	GRAFCAN
23	LAND USE	D_AGRA	Density of active crops	RASTER	2019	Use/km^2	GRAFCAN
24	LAND USE	D_ALRE	Density of residential accommodations	RASTER	2019	Use/km^2	GRAFCAN
25	APMN	D_APCE	Density of environmental crimes collected by the APMUN in the category of construction and buildings (2001-2020)	RASTER	2001-2020	Records /km^2	APMUN
26	APMN	D_APER	Density of environmental crimes collected by the APMUN in the category of minning and tillage (2001-2020)	RASTER	2001-2020	Records /km^2	APMUN
27	APMN	D_APMN	Density of environmental crimes collected by the APMUN (2001-2020)	RASTER	2001-2020	Records /km^2	APMUN
28	APMN	D_APVL	Density of environmental crimes collected by the APMUN in the category of sea dumping (2001-2020)	RASTER	2001-2020	Records /km^2	APMUN
29	APMN	D_APVS	Density of environmental crimes collected by the APMUN in the category of solid waste (2001-2020)	RASTER	2001-2020	Records /km^2	APMUN
30	ACCESIBILITY	D_AUTO	Density of highways and highroads	RASTER	2019	Elements /km^2	GRAFCAN
31	ACCESIBILITY	D_CALL	Density of urban streets	RASTER	2019	Elements /km^2	GRAFCAN
32	ACCESIBILITY	D_CAMI	Density of paths	RASTER	2019	Elements /km^2	GRAFCAN
33	ACCESIBILITY	D_CARR	Density of conventional or multi-lane roads	RASTER	2019	Elements /km^2	GRAFCAN
34	LAND USE	D_CULT	Density of crops	RASTER	2019	Use/km^2	GRAFCAN
35	LAND USE	D_FAAL	Density of manufacturing and storage industries	RASTER	2019	Use/km^2	GRAFCAN
36	LAND USE	D_INDU	Density of industries	RASTER	2019	Inhabitants /km^2	GRAFCAN
37	SOCIODEMOGRAPHY	D_POB	Population density 2019	RASTER	2019	Elements /km^2	GRAFCAN
38	ACCESIBILITY	D_SEND	Density of trails	RASTER	2019	Use/km^2	GRAFCAN

39	LAND USE	D_SERV	Density of services	RASTER	2019	Use/km^2	GRAFCAN
40	LAND USE	D_TEHO	Density of restauration services	RASTER	2019	Use/km^2	GRAFCAN
41	LAND USE	D_TEHT	Density of hotel services	RASTER	2019	Use/km^2	GRAFCAN
42	LAND USE	D_TETO	Density of total services	RASTER	2019	Elements /km^2	GRAFCAN
43	ACCESIBILITY	D_VIAL	Density of total roads	RASTER	2019	Elements /km^2	GRAFCAN
44	LAND USE	D_VITU	Density of tourist dwellings	RASTER	2019	Meters	GRAFCAN
45	LAND USE	ED_ABAG	Distance to abandoned crops	RASTER	2019	Meters	GRAFCAN
46	LAND USE	ED_AGRA	Distances to crop areas	RASTER	2019	Meters	GRAFCAN
47	LAND USE	ED_ALRE	Distance to residential accommodations	RASTER	2019	Meters	GRAFCAN
48	APMN	ED_APCE	Distance to environmental crimes by the APMUN in the category of construction and buildings	RASTER	2001-2020	Meters	APMUN
49	APMN	ED_APER	Distance to environmental crimes collected by the APMUN in the category of minning and tillage	RASTER	2001-2020	Meters	APMUN
50	APMN	ED_APMN	Distance to environmental crimes collected by the APMUN	RASTER	2001-2020	Meters	APMUN
51	APMN	ED_APVL	Distance to environmental crimes collected by the APMUN in the category of sea dumping	RASTER	2001-2020	Meters	APMUN
52	APMN	ED_APVS	Distance to environmental crimes collected by the APMUN in the category of solid waste	RASTER	2001-2020	Meters	APMUN
53	ACCESIBILITY	ED_AUTO	Distance to highways or highroads	RASTER	2019	Meters	GRAFCAN
54	ACCESIBILITY	ED_CALL	Distance to urban streets	RASTER	2019	Meters	GRAFCAN
55	ACCESIBILITY	ED_CAMI	Distance to paths	RASTER	2019	Meters	GRAFCAN
56	ACCESIBILITY	ED_CARR	Distance to roads	RASTER	2019	Meters	GRAFCAN
57	PHYSICAL	ED_COSTA	Distance to the coast	RASTER	2019	Meters	GRAFCAN
58	LAND USE	ED_CULT	Distance to crops	RASTER	2019	Meters	GRAFCAN
59	PHYSICAL	ED_ESPR	Distance to protected natural spaces	RASTER	2019	Meters	GRAFCAN
60	LAND USE	ED_FAAL	Distance to manufacturing and storage industries	RASTER	2019	Meters	GRAFCAN
61	LAND USE	ED_INDU	Distance to industrial spaces	RASTER	2019	Meters	GRAFCAN
62	LAND USE	ED_PREL	Distances to electrical production infrastructure	RASTER	2019	Meters	GRAFCAN
63	ACCESIBILITY	ED_SEND	Distance to trails	RASTER	2019	Meters	GRAFCAN
64	LAND USE	ED_SERV	Distance to services	RASTER	2019	Meters	GRAFCAN
65	LAND USE	ED_TEHO	Distance to tertiary restauration services	RASTER	2019	Meters	GRAFCAN
66	LAND USE	ED_TEHT	Distance to tertiary hotel services	RASTER	2019	Meters	GRAFCAN
67	LAND USE	ED_TETO	Distance to total tertiary services	RASTER	2019	Meters	GRAFCAN
68	ACCESIBILITY	ED_VIAL	Distance to the whole road network	RASTER	2019	Meters	GRAFCAN
69	LAND USE	ED_VITU	Distance to tourist dwellings	RASTER	?	Meters	GRAFCAN
70	PHYSICAL	F_ARBO	Distance to wooded areas	RASTER		Meters	GRAFCAN
71	PHYSICAL	F_ARDI	Distance to dispersed wooded areas	RASTER		Meters	GRAFCAN
72	PHYSICAL	F_ARRO	Distance to sparse wooded areas	RASTER		Meters	GRAFCAN
73	PHYSICAL	F_BARR	Distance to ravines	RASTER		Meters	GRAFCAN
74	PHYSICAL	F_DESA	Distance to deforested areas	RASTER		Meters	GRAFCAN

75	PHYSICAL	F_RENP	Reclassification of natural spaces based on higher or lower protection category	RASTER		Own units	GRAFCAN
76	PHYSICAL	F_MDT	Height above sea level	RASTER		Meters	GRAFCAN
77	PHYSICAL	F_NDVI	Normalized difference vegetation index	RASTER		Own units	ESA
78	PHYSICAL	F_SLOP	Slope	RASTER		Degrees	GRAFCAN
79	SOCIODEMOGRAPHY	F2015_DIRE	Income Distribution	RASTER	2015	€/hab	INE
80	SOCIODEMOGRAPHY	F2015_EMPO	Average age of the Population	RASTER	2015	Years	INE
81	SOCIODEMOGRAPHY	F2015_GINI	Gini Index	RASTER	2015	Own units	INE
82	SOCIODEMOGRAPHY	F2015_OTIN	Other income	RASTER	2015	€	INE
83	SOCIODEMOGRAPHY	F2015_OTPR	Other benefits	RASTER	2015	€	INE
84	SOCIODEMOGRAPHY	F2015_PENS	Pensions	RASTER	2015	€	INE
85	SOCIODEMOGRAPHY	F2015_PHUN	% of single-person households	RASTER	2015	%	INE
86	SOCIODEMOGRAPHY	F2015_PM18	% of population under 18	RASTER	2015	%	INE
87	SOCIODEMOGRAPHY	F2015_PM65	% of population over 65	RASTER	2015	%	INE
88	SOCIODEMOGRAPHY	F2015_POBL	Total population	RASTER	2015	Inhabitans	INE
89	SOCIODEMOGRAPHY	F2015_PRPD	Unemployment benefits	RASTER	2015	€	INE
90	SOCIODEMOGRAPHY	F2015_RNPC	Net Per Capita Income	RASTER	2015	€/hab	INE
91	SOCIODEMOGRAPHY	F2015_SALA	Salaries	RASTER	2015	€	INE
92	SOCIODEMOGRAPHY	F2015_TMHO	Average household size	RASTER	2015	Number of individuals	INE
93	SOCIODEMOGRAPHY	F2016_DIRE	Income Distribution	RASTER	2016	€/hab	INE
94	SOCIODEMOGRAPHY	F2016_EMPO	Average age of the Population	RASTER	2016	Years	INE
95	SOCIODEMOGRAPHY	F2016_GINI	Gini Index	RASTER	2016	Own units	INE
96	SOCIODEMOGRAPHY	F2016_OTIN	Other income	RASTER	2016	€	INE
97	SOCIODEMOGRAPHY	F2016_OTPR	Other benefits	RASTER	2016	€	INE
98	SOCIODEMOGRAPHY	F2016_PENS	Pensions	RASTER	2016	€	INE
99	SOCIODEMOGRAPHY	F2016_PHUN	% of single-person households	RASTER	2016	%	INE
100	SOCIODEMOGRAPHY	F2016_PM18	% of population under 18	RASTER	2016	%	INE
101	SOCIODEMOGRAPHY	F2016_PM65	% of population over 65	RASTER	2016	%	INE
102	SOCIODEMOGRAPHY	F2016_POBL	Total population	RASTER	2016	Inhabitans	INE
103	SOCIODEMOGRAPHY	F2016_PRPD	Unemployment Benefits	RASTER	2016	€	INE
104	SOCIODEMOGRAPHY	F2016_RNPC	Net Income Per Capita	RASTER	2016	€/hab	INE
105	SOCIODEMOGRAPHY	F2016_SALA	Wages	RASTER	2016	€	INE
106	SOCIODEMOGRAPHY	F2016_TMHO	Average Household Size	RASTER	2016	Number of individuals	INE
107	SOCIODEMOGRAPHY	F2017_DIRE	Income Distribution	RASTER	2017	€/hab	INE
108	SOCIODEMOGRAPHY	F2017_EMPO	Average Age of the Population	RASTER	2017	Years	INE
109	SOCIODEMOGRAPHY	F2017_GINI	Gini Index	RASTER	2017	Own units	INE
110	SOCIODEMOGRAPHY	F2017_OTIN	Other Income	RASTER	2017	€	INE
111	SOCIODEMOGRAPHY	F2017_OTPR	Other Benefits	RASTER	2017	€	INE
112	SOCIODEMOGRAPHY	F2017_PENS	Pensions	RASTER	2017	€	INE
113	SOCIODEMOGRAPHY	F2017_PHUN	% of single-person households	RASTER	2017	%	INE
114	SOCIODEMOGRAPHY	F2017_PM18	% of Population Under 18	RASTER	2017	%	INE
115	SOCIODEMOGRAPHY	F2017_PM65	% of Population Over 65	RASTER	2017	%	INE

116	SOCIODEMOGRAPHY	F2017_POBL	Total Population	RASTER	2017	Inhabitans	INE
117	SOCIODEMOGRAPHY	F2017_PRPD	Unemployment Benefits	RASTER	2017	€	INE
118	SOCIODEMOGRAPHY	F2017_RNPC	Net Income Per Capita	RASTER	2017	€/hab	INE
119	SOCIODEMOGRAPHY	F2017_SALA	Wages	RASTER	2017	€	INE
120	SOCIODEMOGRAPHY	F2017_TMHO	Average Household Size	RASTER	2017	Number of individuals	INE
121	SOCIODEMOGRAPHY	F2018_DIRE	Income Distribution	RASTER	2018	€/hab	INE
122	SOCIODEMOGRAPHY	F2018_EMPO	Average Age of the Population	RASTER	2018	Years	INE
123	SOCIODEMOGRAPHY	F2018_GINI	Gini Index	RASTER	2018	Own units	INE
124	SOCIODEMOGRAPHY	F2018_OTIN	Other Income	RASTER	2018	€	INE
125	SOCIODEMOGRAPHY	F2018_OTPR	Other Benefits	RASTER	2018	€	INE
126	SOCIODEMOGRAPHY	F2018_PENS	Pensions	RASTER	2018	€	INE
127	SOCIODEMOGRAPHY	F2018_PHUN	% of One-person Households	RASTER	2018	%	INE
128	SOCIODEMOGRAPHY	F2018_PM18	% of Population Under 18	RASTER	2018	%	INE
129	SOCIODEMOGRAPHY	F2018_PM65	% of Population Over 65	RASTER	2018	%	INE
130	SOCIODEMOGRAPHY	F2018_POBL	Total Population	RASTER	2018	Inhabitans	INE
131	SOCIODEMOGRAPHY	F2018_PRPD	Unemployment Benefits	RASTER	2018	€	INE
132	SOCIODEMOGRAPHY	F2018_RNPC	Net Income Per Capita in 2018	RASTER	2018	€/hab	INE
133	SOCIODEMOGRAPHY	F2018_SALA	Wages	RASTER	2018	€	INE
134	SOCIODEMOGRAPHY	F2018_TMHO	Average Household Size	RASTER	2018	Number of individuals	INE
135	SOCIODEMOGRAPHY	F2019_DIRE	Income Distribution	RASTER	2019	€/hab	INE
136	SOCIODEMOGRAPHY	F2019_EMPO	Average Age of the Population	RASTER	2019	Years	INE
137	SOCIODEMOGRAPHY	F2019_GINI	Gini Index	RASTER	2019	Own units	INE
138	SOCIODEMOGRAPHY	F2019_OTIN	Other Income	RASTER	2019	€	INE
139	SOCIODEMOGRAPHY	F2019_OTPR	Other Benefits	RASTER	2019	€	INE
140	SOCIODEMOGRAPHY	F2019_PENS	Pensions	RASTER	2019	€	INE
141	SOCIODEMOGRAPHY	F2019_PHUN	% of One-person Households	RASTER	2019	%	INE
142	SOCIODEMOGRAPHY	F2019_PM18	% of Population Under 18	RASTER	2019	%	INE
143	SOCIODEMOGRAPHY	F2019_PM65	% of Population Over 65	RASTER	2019	%	INE
144	SOCIODEMOGRAPHY	F2019_POBL	Total Population	RASTER	2019	Inhabitans	INE
145	SOCIODEMOGRAPHY	F2019_PRPD	Unemployment Benefits	RASTER	2019	€	INE
146	SOCIODEMOGRAPHY	F2019_RNPC	Net Income Per Capita in 2019	RASTER	2019	€/hab	INE
147	SOCIODEMOGRAPHY	F2019_SALA	Wages	RASTER	2019	€	INE
148	SOCIODEMOGRAPHY	F2019_TMHO	Average Household Size	RASTER	2019	Number of individuals	INE
149	SOCIODEMOGRAPHY	POB	Population	RASTER	2019	Inhabitans	INE
150	SOCIODEMOGRAPHY	POB_0002	Population from 0 to 2 years old	RASTER	2019	Inhabitans	INE
151	SOCIODEMOGRAPHY	POB_0014	Population from 0 to 14 years old	RASTER	2019	Inhabitans	INE
152	SOCIODEMOGRAPHY	POB_0014PC	% of Population from 0 to 14 years old	RASTER	2019	%	INE
153	SOCIODEMOGRAPHY	POB_0017	Population from 0 to 17 years old	RASTER	2019	Inhabitans	INE
154	SOCIODEMOGRAPHY	POB_0305	Population from 3 to 5 years old	RASTER	2019	Inhabitans	INE
155	SOCIODEMOGRAPHY	POB_0611	Population from 6 to 11 years old	RASTER	2019	Inhabitans	INE
156	SOCIODEMOGRAPHY	POB_1215	Population from 12 to 15 years old	RASTER	2019	Inhabitans	INE

157	SOCIODEMOGRAPHY	POB_1565	Population from 15 to 64 years old	RASTER	2019	Inhabitans	INE
158	SOCIODEMOGRAPHY	POB_1565PC	% of Population from 15 to 64 years old	RASTER	2019	%	INE
159	SOCIODEMOGRAPHY	POB_1617	Population from 16 to 17 years old	RASTER	2019	Inhabitans	INE
160	SOCIODEMOGRAPHY	POB_65	Population over 65 years old	RASTER	2019	Inhabitans	INE
161	SOCIODEMOGRAPHY	POB_6574	Population from 65 to 74 years old	RASTER	2019	Inhabitans	INE
162	SOCIODEMOGRAPHY	POB_65PC	% of Population over 65 years old	RASTER	2019	%	INE
163	SOCIODEMOGRAPHY	POB_7584	Population from 75 to 84 years old	RASTER	2019	Inhabitans	INE
164	SOCIODEMOGRAPHY	POB_85	Population over 85 years old	RASTER	2019	Inhabitans	INE
165	SOCIODEMOGRAPHY	POB_A	Elderly Population Index	RASTER	2019	Own units	INE
166	SOCIODEMOGRAPHY	POB_DS	Population Standard Deviation	RASTER	2019	Inhabitans	INE
167	SOCIODEMOGRAPHY	POB_E	Foreign Population	RASTER	2019	Inhabitans	INE
168	SOCIODEMOGRAPHY	POB_EDS	Standard Deviation of Foreign Population	RASTER	2019	Inhabitans	INE
169	SOCIODEMOGRAPHY	POB_EM	Average Age of Population	RASTER	2019	Inhabitans	INE
170	SOCIODEMOGRAPHY	POB_EP	% of Foreign Population	RASTER	2019	%	INE
171	SOCIODEMOGRAPHY	POB_H	Male Population	RASTER	2019	Inhabitans	INE
172	SOCIODEMOGRAPHY	POB_ID	Dependence Index	RASTER	2019	Own units	INE
173	SOCIODEMOGRAPHY	POB_IDM	Elderly Dependence Index	RASTER	2019	Own units	INE
174	SOCIODEMOGRAPHY	POB_IDME	Youth Dependence Index	RASTER	2019	Own units	INE
175	SOCIODEMOGRAPHY	POB_IF	Femininity Index	RASTER	2019	Own units	INE
176	SOCIODEMOGRAPHY	POB_IJ	Youth Index	RASTER	2019	Own units	INE
177	SOCIODEMOGRAPHY	POB_ISV	Overaging Index	RASTER	2019	Own units	INE
178	SOCIODEMOGRAPHY	POB_IV	Old Age Index	RASTER	2019	Own units	INE
179	SOCIODEMOGRAPHY	POB_M	Female Population	RASTER	2019	Inhabitans	INE
180	SOCIODEMOGRAPHY	POB_N	National Population	RASTER	2019	Inhabitans	INE
181	SOCIODEMOGRAPHY	POB_NACA	Population Born in the Canary Islands	RASTER	2019	Inhabitans	INE
182	SOCIODEMOGRAPHY	POB_NACAPC	% of Population Born in the Canary Islands	RASTER	2019	%	INE
183	SOCIODEMOGRAPHY	POB_NAES_1	% of Population Born in Spain excluding the Canary Islands	RASTER	2019	%	INE
184	SOCIODEMOGRAPHY	POB_NAESCA	Population Born in Spain excluding the Canary Islands	RASTER	2019	Inhabitans	INE
185	SOCIODEMOGRAPHY	POB_NAEX	Population Born Abroad	RASTER	2019	Inhabitans	INE
186	SOCIODEMOGRAPHY	POB_NAEXPC	% of Population Born Abroad	RASTER	2019	%	INE
187	SOCIODEMOGRAPHY	Total_POB	Total Population in 2019	RASTER	2019	Inhabitans	INE

Table S1. List of features and data sources. Sources: APMUN (Agencia de Protección del Medio Urbano y Natural, Government of the Canary Islands); GRAFCAN (Cartographic Company of the Canary Islands); INE (National Statistics Institute of Spain); ESA (European Space Agency).

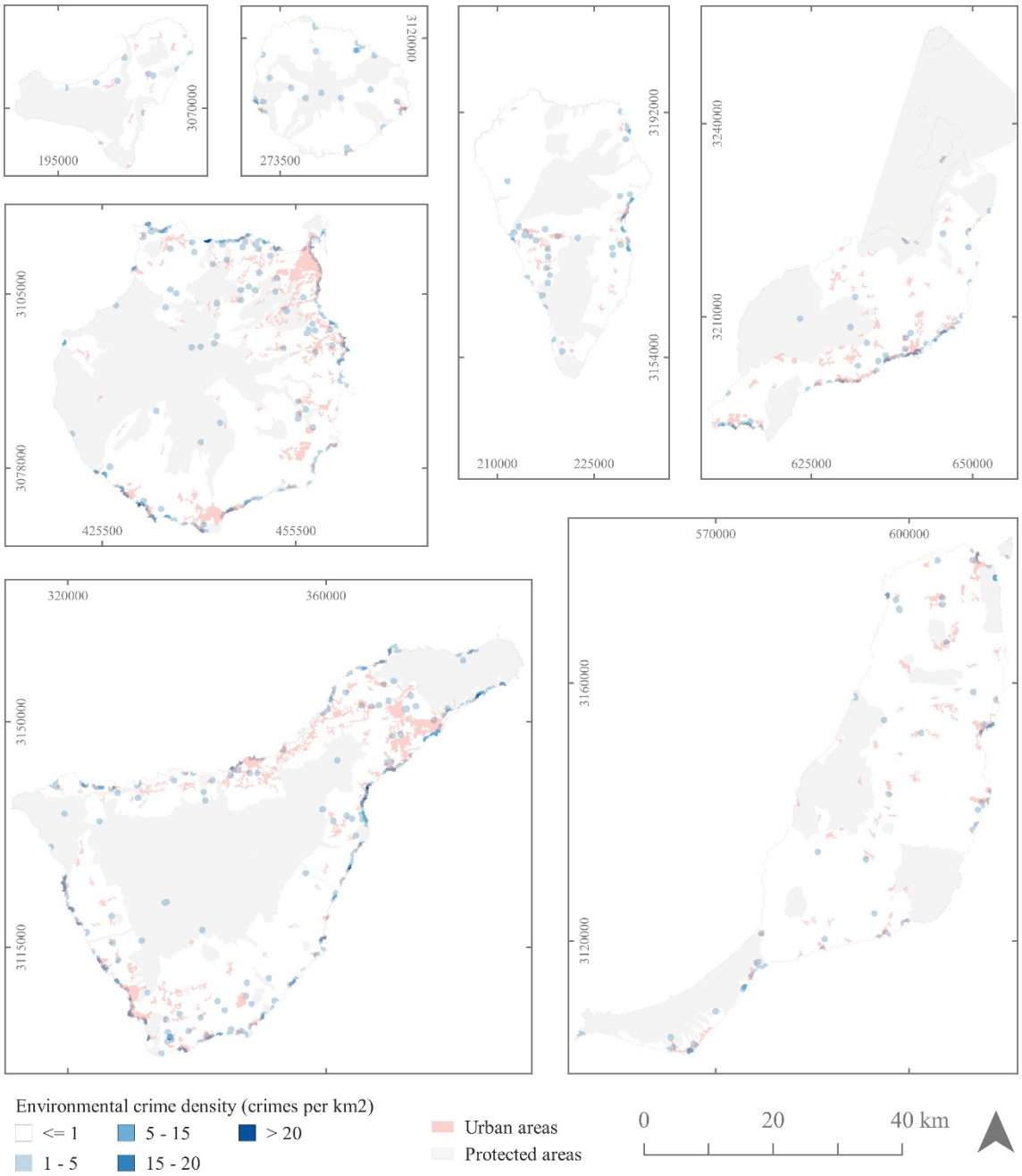

Figure S4. Density of environmental crimes related to liquid littering for the period between 2001 and 2020.

LANZAROTE	FUERTEVEN -TURA	GRAN CANARIA	TENERIFE	LA GOMERA	LA PALMA	EL HIERRO

Distance to residencial areas	Distance to residencial areas	Distance to residencial areas	Distance to residencial areas	Distance to residencial areas	Distance to crops	Distance to residencial areas
Distance to storage fabric	Distance to industrial areas	Distance to crops	Distance to crops	Distance to industrial areas	Distance to storage fabric	Distance to storage fabric
Distance to crops	Distance to crops	Distance to coast	Distance to coast	Distance to touristic houses	Distance to industrial areas	Distance to industrial areas
Population between 6 and 11	Distance to coast	Distance to electric factories	Distance to industrial areas	Distance to ways	Distance to touristic houses	Distance to touristic houses
Distance to industrial areas	Distance to storage fabric	Distance to sparse woodland	Distance to storage fabric	Distance to abandoned crops	Distance to service areas	Distance to ways
Distance to coast	Distance to sparse woodland	Distance to forest	Distance to electric factories	Distance to secondary roads	Distance to touristic areas	Distance to electric factories
Distance to agricultural areas	Distance to forest	Distance to restaurats	Distance to highways	Distance to crops	Distance to highways	Distance to forest
Distance to urban streets	Distance to protected areas	Distance to hotels	Distance to hotels	Distance to roads	Distance to urban streets	Distance to restaurats
Distance to ways	Distance to touristic houses	Distance to sparse woodland	Distance to touristic houses	Salary index	Distance to electric factories	Distance to crops
Distance to highways	Distance to highways	Distance to ways	Distance to abandoned crops	Population up to 18	Distance to secondary roads	Distance to secondary roads

Table S2. Mainly 10 features selected by the building environmental crime models for each island.

LANZAROTE	FUERTEVEN -TURA	GRAN CANARIA	TENERIFE	LA GOMERA	LA PALMA	EL HIERRO
Distance to crops	Distance to residencial areas	Distance to residencial areas	Distance to crops	Distance to industrial areas	Distance to residencial areas	Distance to agricultural areas
Distance to industrial areas	Distance to industrial areas	Distance to crops	Distance to industrial areas	Distance to secondary roads	Distance to crops	Distance to storage fabric
Distance to highways	Distance to ways	Distance to ways	Distance to forest	Distance to storage fabric	Distance to industrial areas	Distance to industrial areas
Distance to storage fabric	Distance to protected areas	Distance to secondary roads	Distance to residencial areas	Distance to crops	Distance to storage fabric	Distance to protected areas

Distance to protected areas	Distance to secondary roads	Distance to touristic houses	Distance to secondary roads	Distance to residencial areas	Distance to restaurats	Distance to electric factories
Distance to coast	Distance to touristic houses	Distance to urban streets	Distance to protected areas	Distance to roads	Distance to hotels	Distance to roads
Population born in Canary Island	Distance to storage fabric	Distance to roads	Distance to highways	Distance to service areas	Distance to electric factories	Distance to ways
Distance to sparse woodland	Distance to ways	Distance to ways	Distance to sparse woodland	Distance to restaurats	Distance to touristic houses	Distance to secondary roads
Distance to abandoned crops	Distance to service areas	Distance to electric factories	Distance to coast	Distance to touristic areas	NDVI	Distance to hotels
Poupulation up to 85	Distance to highways	Distance to forest	Distance to sparse woodland	Distance to urban streets	Distance to service areas	Distance to abandoned crops

Table S3. Mainly 10 features selected by mining environmental crime models for each island.

LANZAROTE	FUERTEVEN -TURA	GRAN CANARIA	TENERIFE	LA GOMERA	LA PALMA	EL HIERRO
Distance to service areas	Distance to residencial areas	Distance to storage fabric	Distance to industrial areas	Distance to residencial areas	Distance to residencial areas	Distance to residencial areas
Distance to touristic areas	Distance to storage fabric	Distance to urban streets	Distance to storage fabric	Distance to industrial areas	Distance to industrial areas	Distance to industrial areas
Distance to residencial areas	Distance to grassland areas	Distance to industrial areas	Distance to residencial areas	Distance to touristic areas	Distance to highways	Distance to storage fabric
Distance to storage fabric	Distance to secondary roads	Distance to residencial areas	Distance to highways	Distance to storage fabric	Distance to storage fabric	Distance to urban streets
Distance to forest	Distance to service areas	Distance to highways	Distance to coast	Distance to roads	Distance to restaurats	Distance to protected areas
Distance to industrial areas	Distance to touristic areas	Distance to secondary roads	Distance to urban streets	Distance to restaurats	Distance to urban streets	Distance to sparse woodland
Distance to grassland	Distance to coast	Distance to coast	Distance to ways	Distance to urban streets	Distance to hotels	Distance to forest

areas						
Income index	Distance to industrial areas	Distance to ways	Distance to protected areas	Distance to service areas	Distance to roads	Distance to hotels
Distance to coast	Distance to urban streets	Distance to electric factories	Distance to hotels	Distance to ways	Distance to coast	Distance to roads
Distance to protected areas	Distance to touristic houses	Distance to sparse woodland	Distance to forest	Distance to ravins	Distance to touristic areas	Distance to secondary roads

Table S4. Mainly 10 features selected by solid littering environmental crime models for each island.

LANZAROTE	FUERTEVEN-TURA	GRAN CANARIA	TENERIFE	LA GOMERA	LA PALMA	EL HIERRO
Distance to coast	Distance to coast	Distance to forest	Distance to coast	Distance to coast	Distance to coast	Distance to protected areas
Distance to protected areas	Distance to touristic houses	Distance to protected areas	Distance to urban streets	Distance to urban streets	Distance to urban streets	Distance to agricultural areas
Distance to restaurats	Distance to residencial areas	Distance to ways	Distance to residencial areas	F2018_OTPR	Distance to industrial areas	Distance to abandoned crops
Distance to hotels	Distance to hotels	Population density	Distance to forest	Distance to service areas	Distance to sparse woodland	Distance to residencial areas
Personal income	Population	Distance to sparse woodland	Distance to protected areas	Distance to touristic areas	Distance to storage fabric	Distance to crops
Percentage of unipersonal homes		Altitude	Distance to highways	Distance to agricultural areas	Distance to forest	Distance to electric factories
Distance to forest			Unemployment benefits	Population born in Canary Island	Distance to restaurats	Distance to touristic areas
Distance to service areas			Distance to sparse woodland	Distance to abandoned crops	Distance to hotels	Distance to roads
Distance to roads			Retrait benefits	Unemployment benefits	Retrait benefits	Distance to service areas

Distance to abandoned crops			Distance to service areas	Pupulation up to 85	% population up to 65	NDVI

Table S5. Mainly 10 features selected by Liquid littering environmental crime models for each island.