









HIGH-RESOLUTION GEOMATICS TOOLS

- Sustainably managing commercial vineyards to address the UN SDGs -



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THE UN 17 SUSTAINABLE DEVELOPMENT GOALS





























POLICY TARGETS

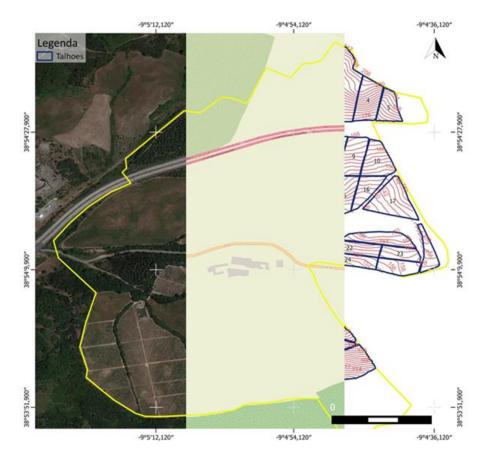




related information throughout your journey – Business for Nature

FREELY ACCESSIBLE GEOMATIC SOFWTARE







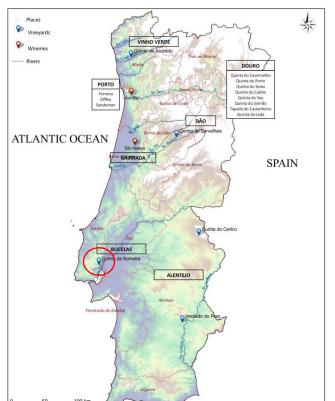
Leading open-source GIS software, fully volunteer-driven and usable on Windows, Mac, Linux, BSD and mobile devices.

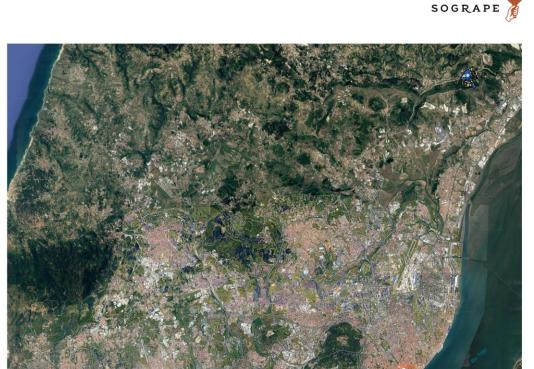
1 394 076 lines of code 54 093 165 US\$ development cost

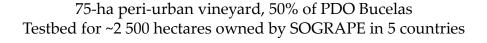
2 000 developers (20-50 core) 200 000 weekly users 2 million+ irregular users

Sources: qgis.org, David A. Wheeler's SLOCCOUNT, GISPO

THE VINEYARD CASE STUDY











Sogrape Vinhos SA Carta Administrativa Oficial de Portugal, DGT 2012

THE VINEYARD

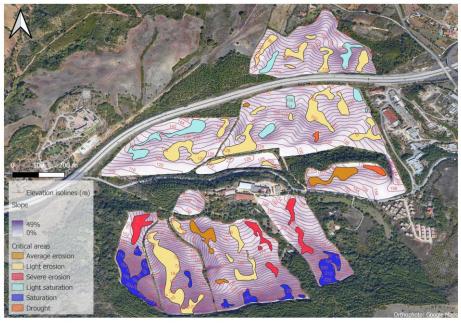




LONG-TERM ANALYSIS OF CRITICAL AREAS









WATER FLOW AND SEDIMENT TRANSPORT





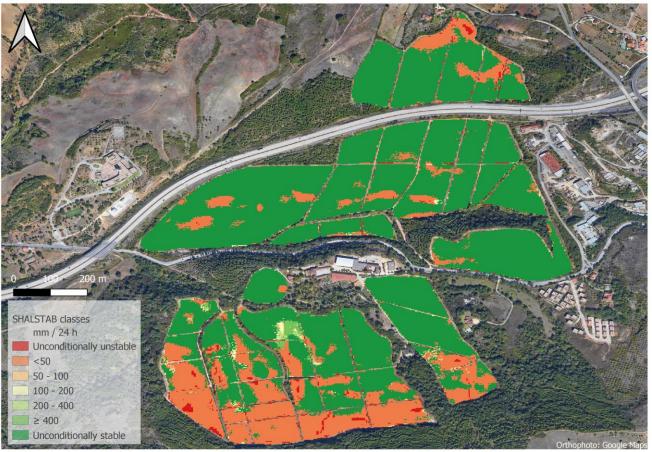


SIMWE (SIMulate Water Erosion) model – Mitas & Mitasova, 1998



SLOPE STABILITY AND LANDSLIDE RISK MAP



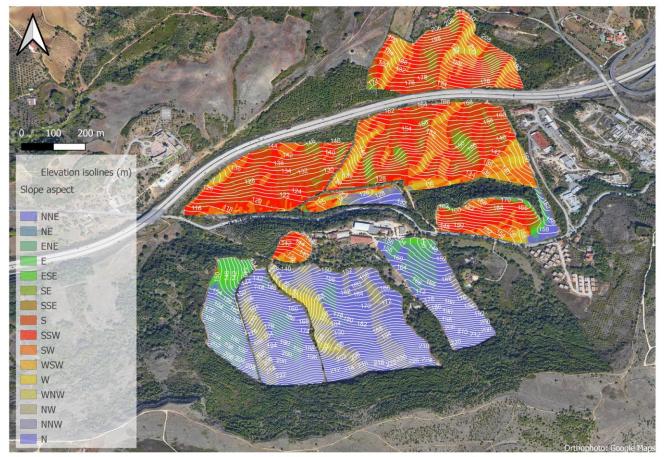




SLOPE AND ASPECT DRIVERS OF HEAT LOAD AND SUN-BURN RISK



41 hectares (56% of total area) with increased heat risk

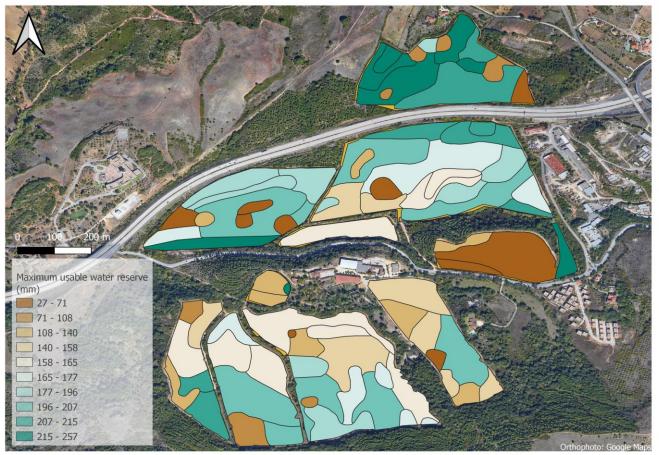




WATER CONSERVATION AND AVAILABILITY



16 hectares (21% of total area) with MUWR above 200 mm





NATURE AND BIODIVERSITY ACTION



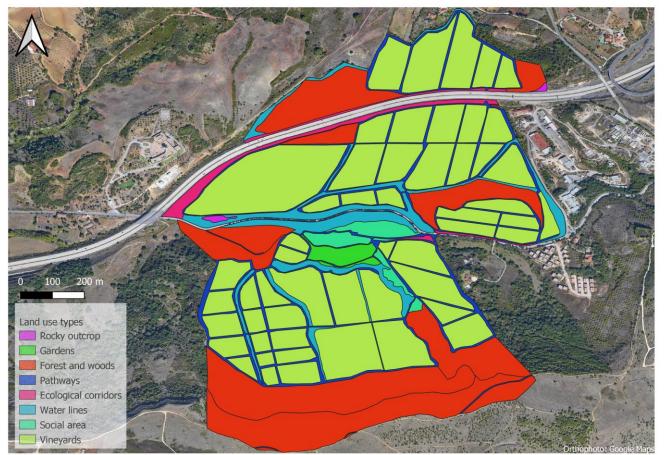
34 hectares

(41% of total area) high carbon sequestration potential

15 hectares

(20% of toral area) with high biodiversity value (last remaining patch of original Lisboa area native forest)

11 habitats







MAPPING BIODIVERSITY DEPENDENCIES AND IMPACTS





TYPE (DIURNAL)	SPECIES
PLANTS	147
BUTTERFLIES	25
DRAGONFLIES	8
BIRDS	31
AMPHIBIANS	4
REPTILES	6
MAMMALS	8

Sulvia atricanilla			Toutineara-de-harrete-preto				Residente					
Streptopelia decaocto			Rola-turca				Residente					
Streptopelia turtur			Rola-brava			Nidificante				15	LIFE On Land	
Phoenicurus ochruros			Rabirruivo			Residente			10			
Columba palumbus			Pombo-torcaz			Residente			LC			
Erithacus rubecula			Pisco-de-peito-ruivo			Residente			LC			
Carduelis carduelis			Pintassilgo				Residente			LC		
							1000 0000					
Lanius meridionalis			Picanço-real-meridional			Residente				LC		
Alecto	oris rufa		Perdiz-comum				Residente			LC		
Falco	tinnunculus		Peneireiro-vulgar				Residente			LC		
Passe	r domesticus		Pardal-co	mum	Residente				LC			
Oriolus oriolus			Papa-figos			Nidificante			LC			
	e noctua	erva-das-arcias	v. sagina-das-arcias* MOCNO-g	alego	Di.	desconhecido	Reside	nte	mediterrinco		LU	0
Polygonaceae Asparagaceae	Rumex pulcher Ruscus acuteatus	labaça-sinuosa. gilbardora, erv	a-dos-vasculhos, gibaubeiro	ľ	VI VI	tóxica alimentar	herbácea perene bulbona	606 606	mediterrineo mediterrineo	Pouco P	reocupante	0
Rubiaceae Rosaceae	Rubia poregrina Rubus ulmifolius		iva-brava, granza-brava	2	VI VII	medicinal alimentar	tropadoira tropadoira	000	mediterranco mediterranco			0
Rhamnaceae Rosaceae	Rhamnus oleoides Rosa sempenarens	espinheiro-pret		III V	IV VI	material medicinal	arbusio Iropadora	cc	mediterrineo mediterrineo			0
Asteraceae Rhamnaceae	Reichardia picroides Rhamnus alatemus	leituguinha-dos	-caminhos* -sebes, ademo-bastardo	XI II	IV IV	alimentar Tóxica	herbácea porene árvore	c cc	mediterrâneo mediterrâneo			0
Fagaceae Brassicaceae	Quercus suber Rephanus raphanistrum	sobreiro, sobre saramago, rába	ira, sobro, chaparro sno-silvestre	1	VII	material Alimentar	árvore herbácea perene	000	mediterráneo Europa			1 0
Fagacese Fagacese	Quercus coccifera Quercus fagines subsp. broteroi	carrasco, carra carvalho-cerqui	nqueiro inho	III IX	IV III	material material	arbusio árvoro	cc cc	mediterrineo Endemismo ibero-	magrobino		0
Rosaceae Asteraceae	Prunus spinosa Pulicania arabica subsp. hispanica	abrunhoiro-bra onva-pulguoira,	mata-puigas	v	III IX	alimontar aromática	arbusto herbácea anual	000 000	PR Endomismo iboro-	magrobino		0
Lamiaceae	Populus nigra Prunolla vulgaris	choupo-negro, prunola, enva-fe	OFFICIA.	v	SHI	medicinal medicinal	ánvore herbácea porene	CCC	PR PR			0
Caryophyllacead	Plantago semania Polycarpon tetraphyllum	tanchagem-ser saboneteira*	rada*	IV IV	VIII	descenhecido aremática	herbácea perene herbácea anual	000	mediterrineo Mediterrineo			0
Plantaginaceae	Plantago coronopus Plantago (anocolata	corrido, lingua-d	inito, tanchagem-como-de-veado de-ovelha, tanchagem-menor	III IV	VII	alimontar alimontar	herbácea perene herbácea perene	000	mediterrâneo PR			0
Plantaginaceae	Pistacia lontiscus Plantago alta	zaragaloa, erva	o, alfostigueiro i-das-pulgas, tanchagem		V	aromática medicinal	árvore herbácea anual	000 000	mediterrâneo mediterrâneo			0
Pinaceae	Pinus pinaster	pinheiro-bravo			VI	material	árvore	000	moditerráneo			0
Posceae	Pallenis spinosa Phalanis aquatica Pinus haloomais	pampilho-espin alpista-aquilica pinheiro-de-ale	a, carriço-das-searas, capim-doce	v	VI	medicinal material	herbácea perene herbácea perene ánuero	r r	PR mediterrânco IN			0
Lamiscose	Ophrys apifora Origanum vulgare subsp. virens	oregio		v v	VIII	almentar almentar descenherido	arbusio	cc	Endemismo ibero-magretino			0
Fabacese	Onobrychis humilis Ononis natris	joina-dos-mato crya-abolha, als		v.	vi	forrageira medicinal almontar	arbusto bultona	er	mediamineo mediamineo	magrecano		0
Oleaceae	Oloa curopaca var. sylvestris		nbujo, oliveira-brava	0	v	material	ánvore herbácea perene	oc	mediternineo Endemismo ibero-magrebino			0
Orobanchaceae	Odorstielle virgate Oenanthe crocute	orva-mata-pulg		VII	EX VI	medicinal Toxica	herbácea anual bulbosa	e cor	Endemismo ibence			0
Amarytidaceae	Narcissus bulbocodium Noceia Juberosa		narelas, cucos, campainhas-dos-montes	E C	tV Vi	Medicinal aromática	bulbosa hertaicea perene	cec	Endemismo ibero-	magnetis Pouco P		1 0
Fabaceae Fabaceae	Medicage sativa Medictus segetalis	lucoma, alfafa anafa, anafo-m		W.	VIII	forrageira forrageira	herbácea anual herbácea anual	r	PR Mediterrinco	Pouco P	reocumento	0
Fabacose	Lonicera implexa Medicago minima	lucorna-pequer	na .	rv rv	VI V	medicinal forrageira	tropadoira herbácea anual	cc cc	mediterrineo pR			0
Linacoae	Lavatera cretica Linum bionno	linho-bravo, lini	malva-bastarda ho-do-invorno, linho-galogo		VI	alimentar Medicinal	herbácea anual herbácea perene	000	Mediterrineo mediterrineo			0
auraceae	Laurus nobilis	loureiro, louro		88	N N	alimentar	árvore	coc	mediterrineo			0
Asteracoae	Klases boelics subsp. lustanics Lathyrus hirodus	sorrátula-lusitar	ne .	Ÿ	VI VI	ornamental forrageira	herbácea perene tropadoira	6	Endemismo lusitánico P		Preocupanto	0
	Hypericum Iomenilosum Juncus vakatus	hipericác-tomo junco-da-estrer	ntoso", calaftio	vi rv	VII	medicinal ornamental	herbácea perene herbácea perene	c	mediterráneo Endernismo lusitán	iro Oune I	Monarada	0
Hypericaceae	Hypericum perforatum		de-são-joão			Medicinal	herbácea perene herbácea perene	coc.	mediterrineo PR			0

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Gemez's wall lizard (Podarcis virescens) – Iberian endemism Protograph by Akhil Kesaraju distributed under a CC-BY 4.0 license	1

SYSTEMIC INTEGRATION FOR ADVOCACY



WINE IS A MAJOR ROLE-MODEL IN BECOMING NATURE-POSITIVE

CREATING A **POSITIVE FEEDBACK** LOOP



THAT VALUES NATURE



THE WINE SECTOR

Global footprint

High-profile cultural product

Nature and landscape assets

Expert in consumer communication

OPEN-SOURCE GEOMATICS

Manage sustainably and measure results

Create communication content on GMP

A toolkit to report and disclose contribution for SDGs and related policies

Thank you

