

SESSION 2. FEEDBACK FROM EARLY ADOPTERS

Experiences from Greece

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Athens and Online
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In collaboration with Early Adopters



Expectations

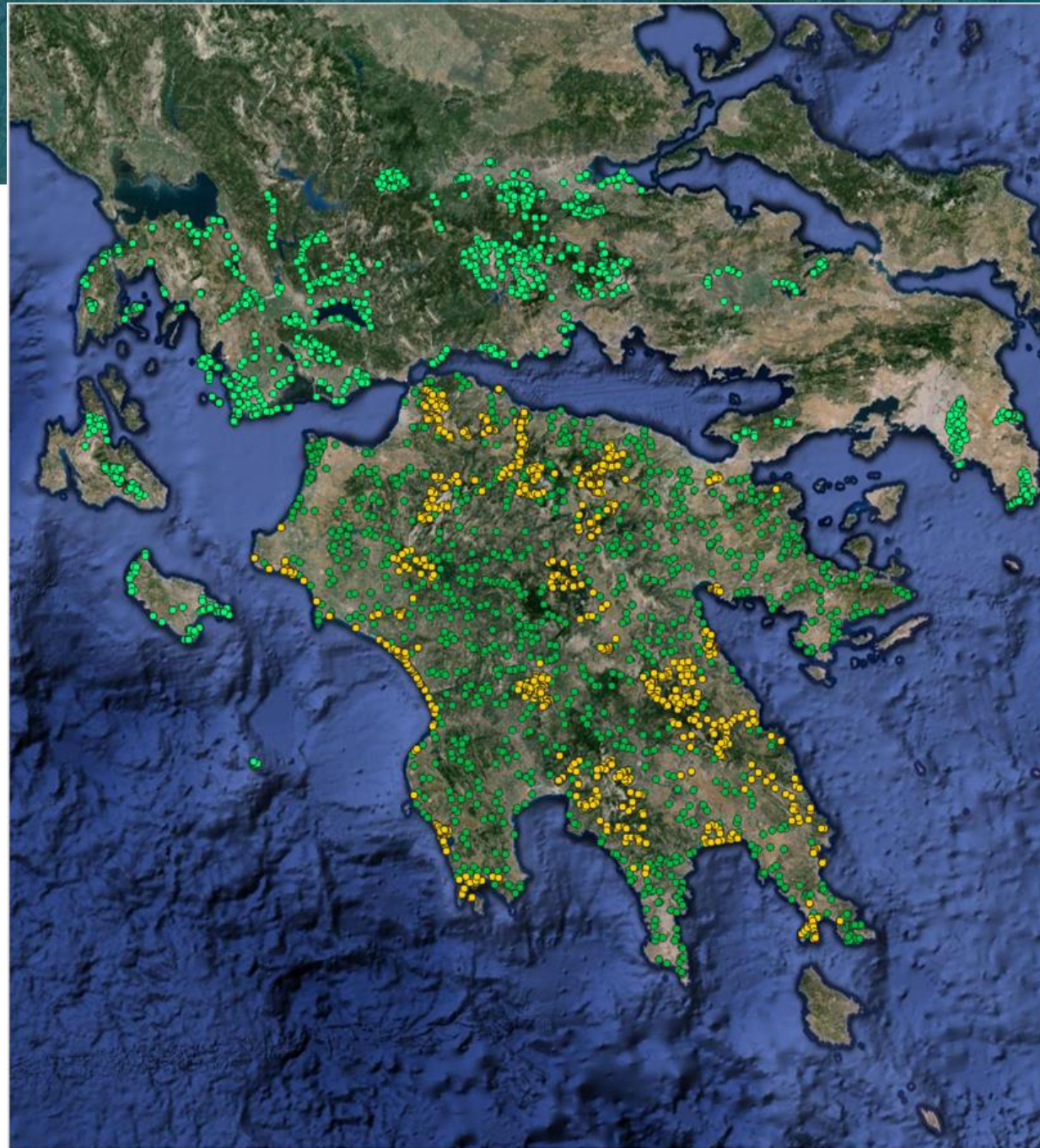
- Develop ecosystem extent accounts supported by periodically available, standardised EO datasets:
 - Methods, pilots and standardize processes for NCA.
- Develop ecosystem condition accounts based on EO data and field recordings for biodiversity and structural characteristics (forests, beaches, dunes, wetlands)
- Develop ecosystem services accounts.

Contributions

- National Ecosystem Type Map of Greece (MAES level 3), recently created for the LIFE-IP 4 NATURA project.
- Field survey data for ecosystem condition and ecosystem services from the MAES_GR platform (LIFE-IP 4 NATURA project).
- Field survey of the plots from the Habitat Directive monitoring projects (2000, 2016).

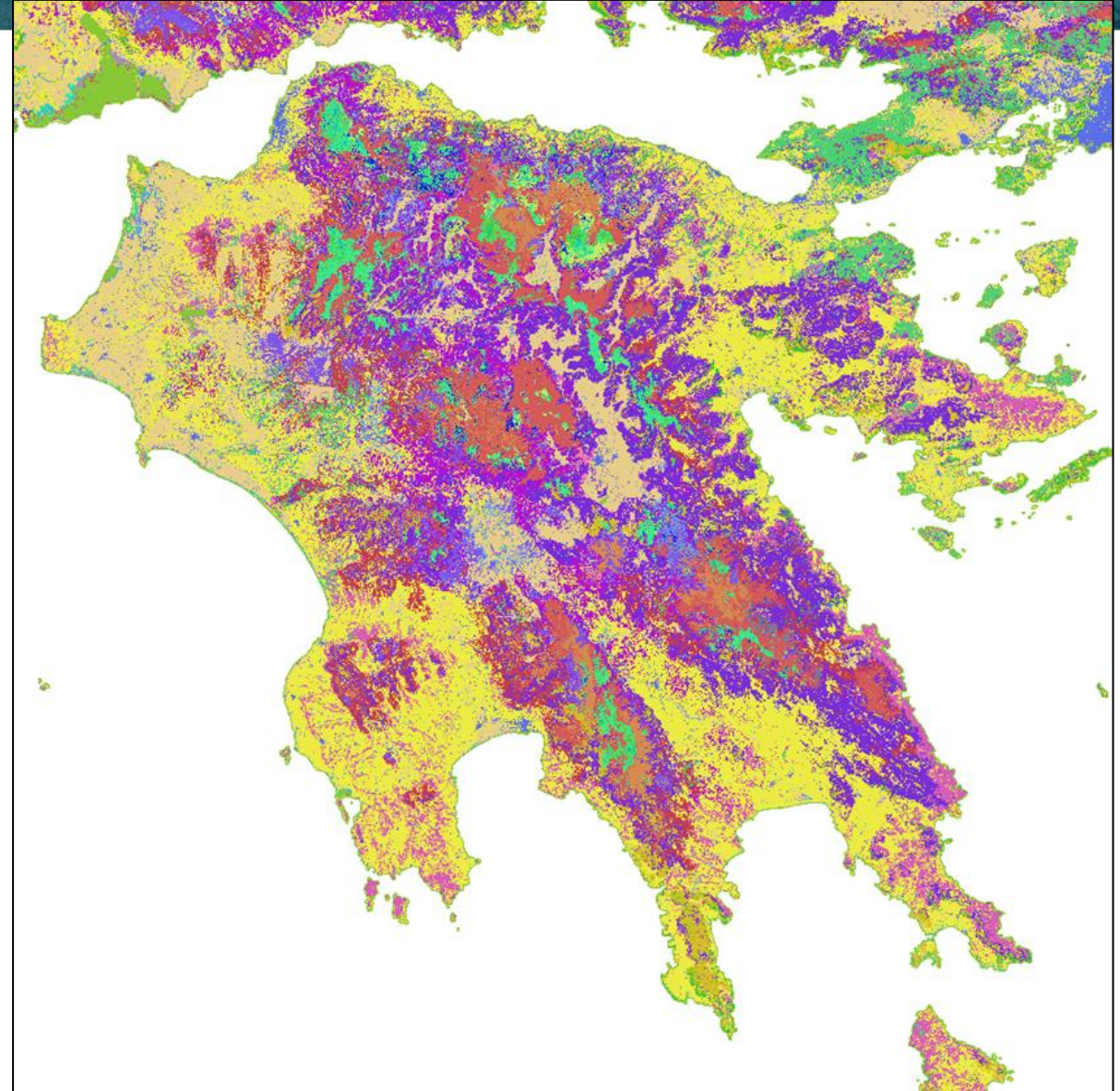
Contributions

Field data for training
representation



PEOPLE-EA: Mapping ecosystem extend

- First ecosystem type extent map (L3) for the region (and for Greece).
- Integration of available(national, regional and local scale) mapping and ecological data.
- Important input is the “Quality Layer” of extent.



PEOPLE-EA: Mapping ecosystem extend

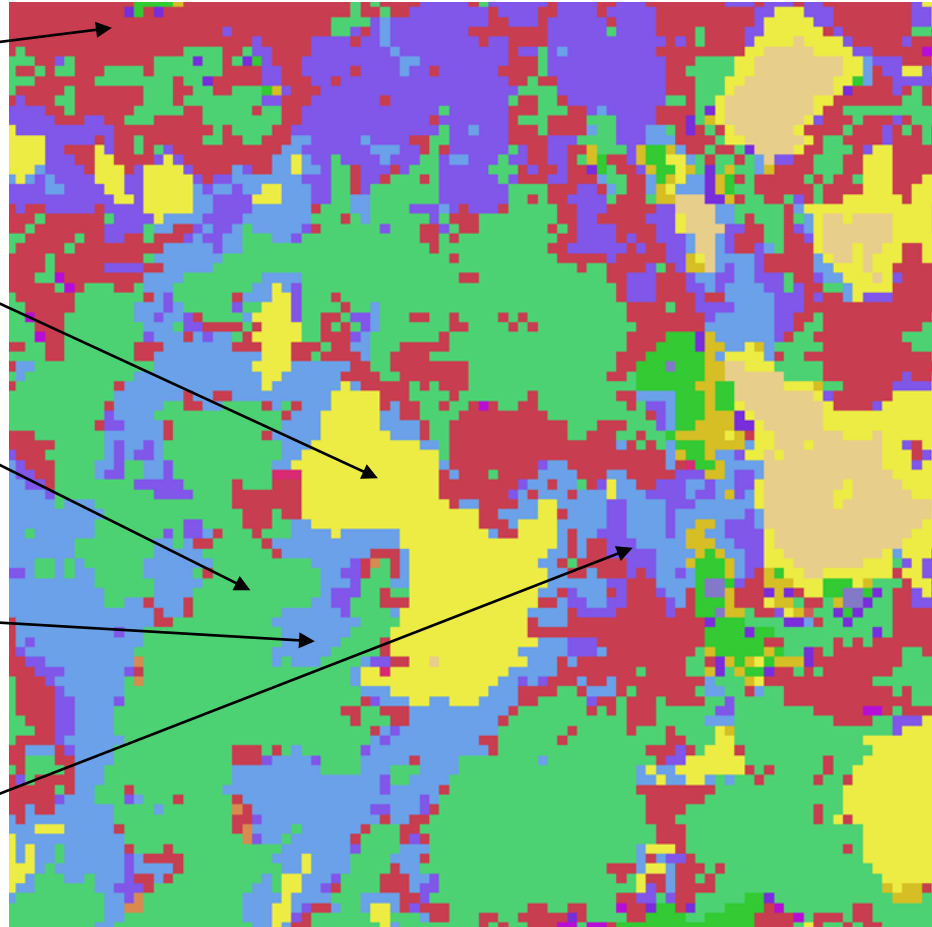
Mediterranean evergreen
Quercus forest

Mixed evergreen
orchards and groves
(olive groves)

Mediterranean lowland to
submontane *Pinus* forest

Mediterranean and
Macaronesian riparian forest

Temperate and sub-
mediterranean thermophilous
deciduous forest



PEOPLE-EA: Mapping ecosystem extend

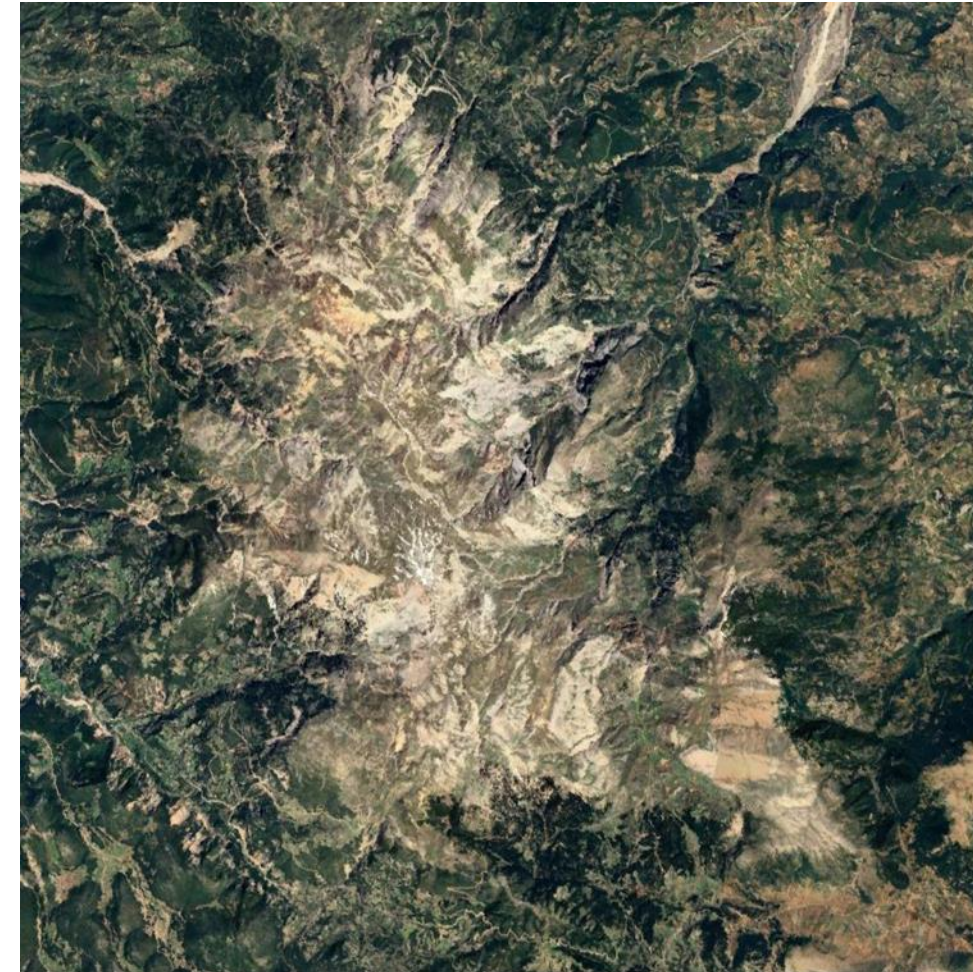
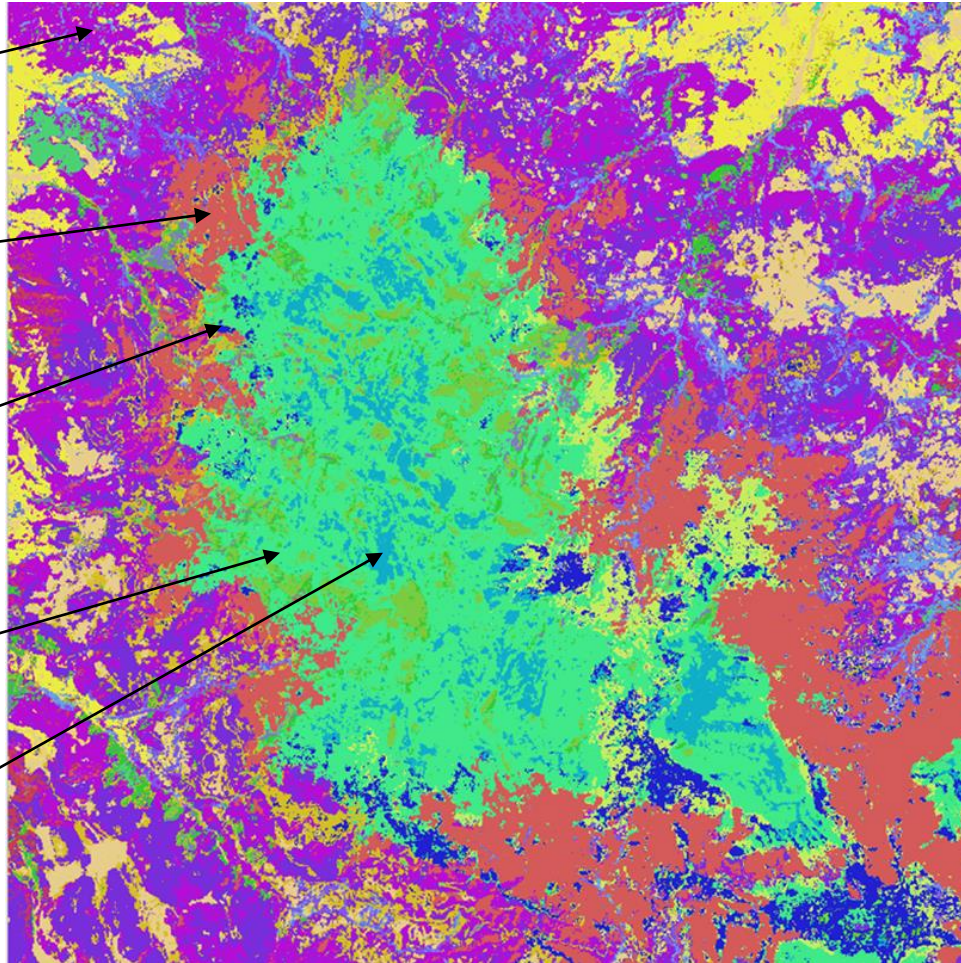
Mediterranean evergreen
Quercus forest (Greece)

Mediterranean
mountain *Abies* forest
(Greece)

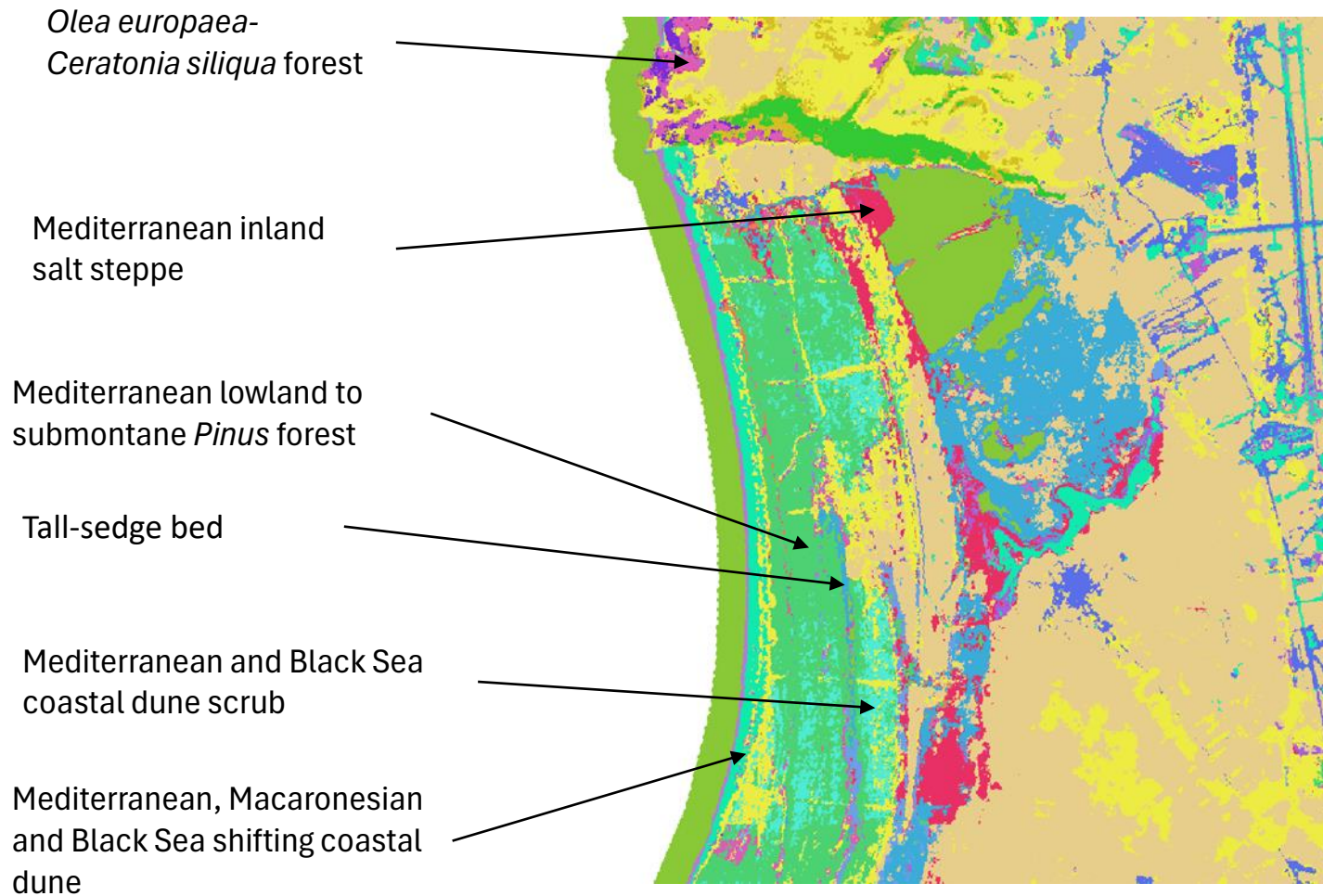
Mediterranean closely
grazed dry grassland

Eastern Mediterranean
mountain hedgehog-
heath

Balkan and Anatolian
oromediterranean dry
grassland



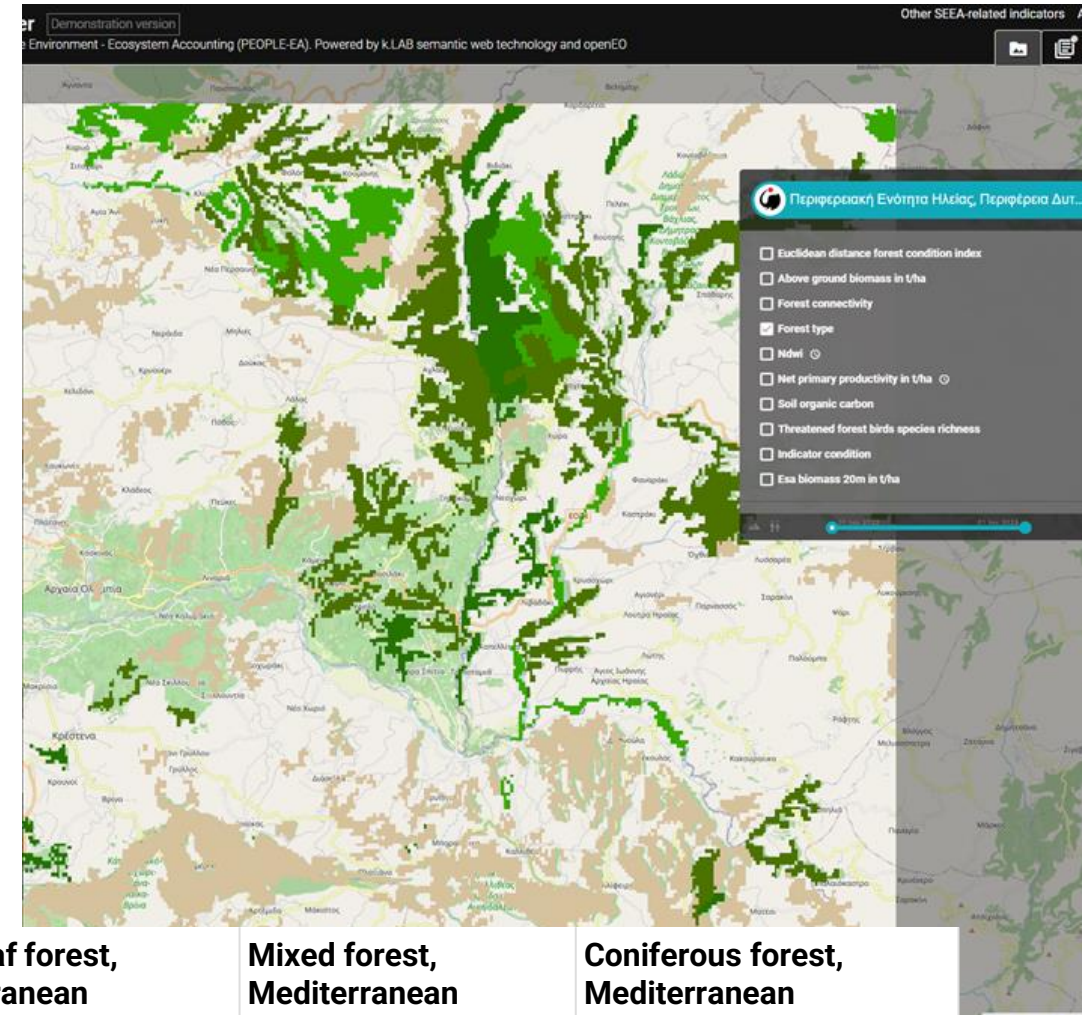
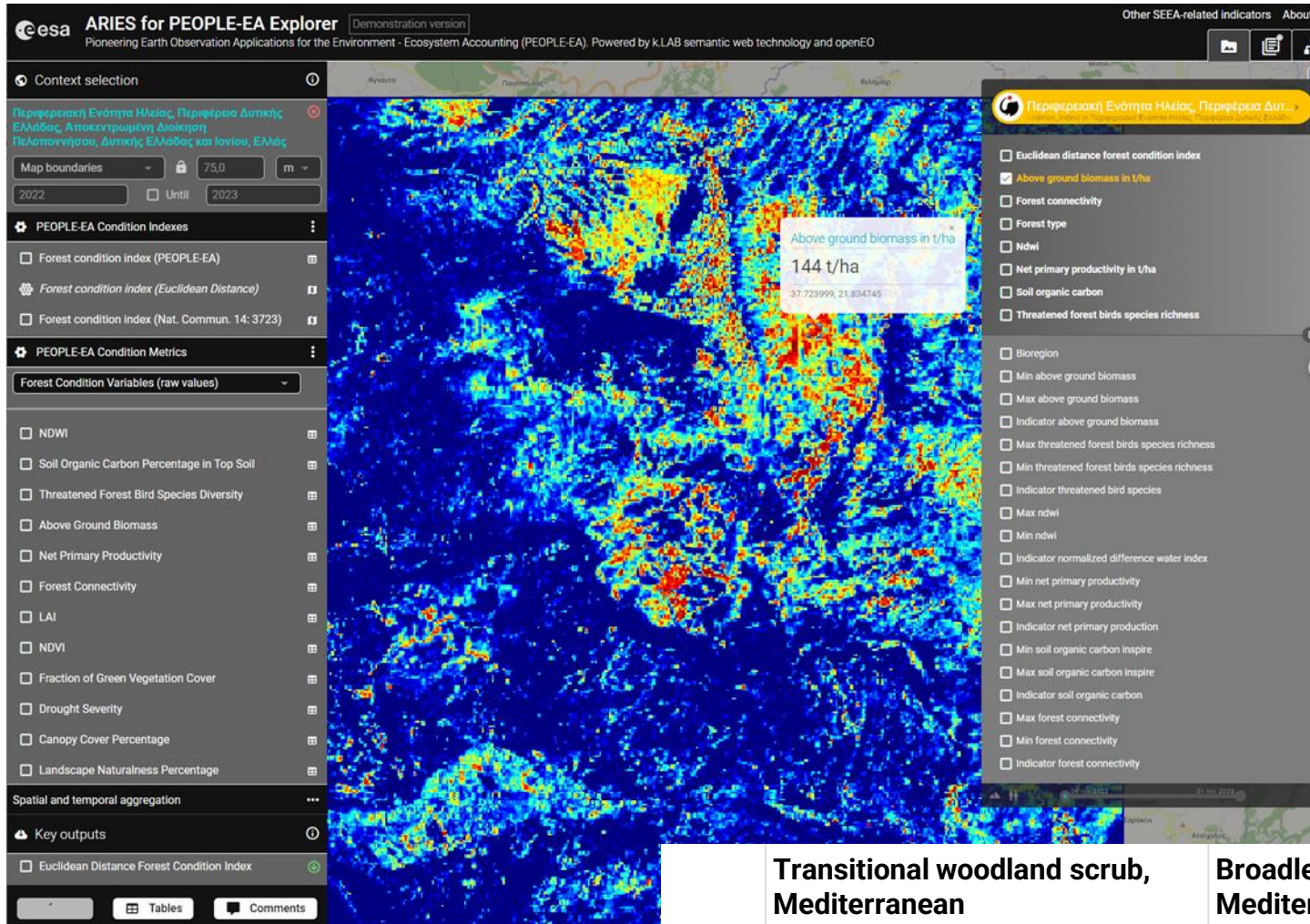
PEOPLE-EA: Mapping ecosystem extend



PEOPLE-EA: Mapping ecosystem extend

value	Ecosystem Type	Opening area (ha)	Additions	Reductions	Net changes	Closing area (ha)	Share of closing area
4	Forest and woodland - Totals					875,869	38.66%
4.0	Unallocated L2					2,956	0.13%
4.1	Broadleaved deciduous forest - unallocated					82,211	3.63%
4.1.0	Unallocated L3					0	0.00%
4.1.1	Riparian forest and woodland					32,943	1.45%
4.1.4	Submediterranean and Mediterranean thermophilous deciduous forest					49,268	2.17%
4.2	Coniferous forests - unallocated					197,926	8.74%
4.2.0	Unallocated L3					197,926	8.74%
4.3	Broadleaved evergreen forest					236,657	10.44%
4.3.0	Unallocated L3					236,657	10.44%
4.4	Mixed forests					97,290	4.29%
4.4.1	Mixed forests dominated by coniferous species					41,533	1.83%
4.4.2	Mixed forests dominated by broadleaved species					5,227	0.23%
4.4.3	Other mixed forests including stands of non-native trees species that have long been established in European ecosystems stands					50,530	2.23%
4.5	Transitional forest					0	0.00%
4.6	Plantations - unallocated					258,830	11.42%

ARIES for PEOPLE-EA Explorer: Condition metrics



Year 2022

Transitional woodland scrub, Mediterranean

32.67

Broadleaf forest, Mediterranean

85.57

Mixed forest, Mediterranean

80.55

Coniferous forest, Mediterranean

74.89

ARIES for PEOPLE-EA Explorer: Ecosystem services

Data from forest
management studies



ARIES for PEOPLE-EA Explorer: Ecosystem services (physical)

Global Climate Regulation Physical Supply (tons C storage)

	Boreal temperate montane forest woodland	Coastal saltmarsh reedbed	Cropland	Rocky pavement lavaflow scree	Seasonally dry temperate heath shrubland	Temperate forest	Temperate subhumid grassland	Temperate woodland	Tropical subtropical dry forest thicket	Tropical subtropical savanna	Urban industrial ecosystem	Warm temperate tropical marsh	Total
Year 2022	10277087.00	348804.00	50062191.00	542936.00	11630765.00	1112181.00	1943732.00	11484196.00	158402.00	1002972.00	621477.00	27690.00	89212433.00

Soil Erosion Control Physical Supply (tons soil retained)

	Aquatic	Boreal temperate montane forest woodland	Coastal saltmarsh reedbed	Cropland	Rocky pavement lavaflow scree	Seasonally dry temperate heath shrubland	Temperate forest	Temperate subhumid grassland	Temperate woodland	Tropical subtropical dry forest thicket	Tropical subtropical savanna	Urban industrial ecosystem	Warm temperate tropical marsh	Total
Year 2022	0.00	2821085.81	1886.94	3639960.12	77699.57	2645263.10	54066.00	435461.41	2311769.52	24753.79	118664.37	0.00	4141.97	12134752.59

ARIES for PEOPLE-EA Explorer: Ecosystem services (monetary)

Global Climate Regulation Monetary Supply

	Coastal saltmarsh reedbed	Crop and	Urban industrial ecosystem	Temperate woodland	Temperate subhumid grassland	Tropical subtropical savanna	Rocky pavement lavaflow scree	Seasonally dry temperate heath shrubland	Boreal temperate montane forest woodland	Temperate forest	Tropical subtropical dry forest thicket	Warm temperate tropical marsh	Aquatic	Total
Quantity 2022 (tons C storage)	155516.92	22283369.60	276628.76	5113952.70	865354.03	447117.02	241761.84	5176668.70	4570951.78	494298.08	70546.56	12346.31		39741293.59
Quantity 2022 (tons C storage)	155516.92	22283369.60	276628.76	5113952.70	865354.03	447117.02	241761.84	5176668.70	4570951.78	494298.08	70546.56	12346.31		39741293.59
Net change	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annualised Social Cost of Carbon in 2022 (\$@2015/ton)	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47
Monetary value of C sequestered (2015 USD)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Highlights and remarks

- Baseline ecosystem extent values for future accounting using a standardised approach to capture future changes.
- New training data can be integrated to the model (e.g. from ongoing and future observations)
- Issues on EO application on areas where management practices change (e.g., land abandonment, grazing practice change or at areas affected by natural disasters (need integration of relevant datasets after the occurrence of such events?))
- Next step - Align PEOPLE-EA condition indicators with structural metrics (e.g. for forests) assessed in the field by EU Nature Directives (e.g., Habitat Directive)



Thank you!

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