

**ΔΙΚΑΙΟΥΧΟΣ:** Ερευνητικό Κέντρο Φρέντερικ

**ΤΙΤΛΟΣ ΠΑΡΑΔΟΤΕΟΥ:** ΣΥΜΜΕΤΟΧΗ ΚΑΙ ΠΑΡΟΥΣΙΑΣΗ ΕΡΓΟΥ ΣΕ ΕΠΙΣΤΗΜΟΝΙΚΟ ΣΥΝΕΔΡΙΟ (2.6.3)

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**2.6.3.1 Πρακτικά Συνεδρίου, με περίληψη της ανακοίνωσης**

Ημερομηνία: Οκτώβριος 2022

Το παραδοτέο αυτό ετοιμάστηκε από το Ερευνητικό Κέντρο Φρέντερικ (Frederick Research Center) στο πλαίσιο της πράξης *Υδάτινοι δρόμοι και ιστορίες στο E4 και στα Γεωπάρκα της Ανατολικής Μεσογείου* (Ακρωνύμιο: WaterWays), η οποία συγχρηματοδοτείται από την Ευρωπαϊκή Ένωση (ΕΤΠΑ) και εθνικούς πόρους της Ελλάδας και της Κύπρου στο πλαίσιο του Προγράμματος Συνεργασίας INTERREG-V Ελλάδα-Κύπρος 2014-2020.



## 1. Εισαγωγή

Το έργο «Υδάτινοι Δρόμοι και Ιστορίες στο E4 και στα Γεωπάρκα της Ανατολικής Μεσογείου» (Ακρωνύμιο: Waterways), αποσκοπεί στη βελτίωση και ενίσχυση της ελκυστικότητας περιοχών φυσικού και πολιτιστικού ενδιαφέροντος μέσω της προστασίας και ανάδειξης σημαντικών «στοιχείων νερού» στην περιοχή της Μαραθάσας στην Κύπρο και στην περιοχή της Σητείας στην Κρήτη. Η ανάδειξη του στοιχείου του νερού στην περιοχή Μαραθάσας και της ζωογόνου σημασίας που αυτό έχει για τον άνθρωπο και τη φύση, αποτελεί αναγνώριση του συγκριτικού πλεονεκτήματος της περιοχής αυτής, παρέχοντας μοναδικές αναπτυξιακές ευκαιρίες και δυνατότητες βιώσιμης ανάπτυξης των τοπικών κοινοτήτων και ανάδειξης τους σε γεωτουριστικούς προορισμούς αριστείας. Ως εκ τούτου η πράξη WaterWays, στοχεύει στο να προβάλει την αξία και τα ιδιαίτερα χαρακτηριστικά γεωλογικής και πολιτιστικής κληρονομιάς της Μαραθάσας, ενισχύοντας έμμεσα και άμεσα την προστασία και διατήρηση του φυσικού και πολιτιστικού περιβάλλοντος και ευαισθητοποίηση των πολιτών σχετικά με την κλιματική αλλαγή και την αειφόρο ανάπτυξη.

Για το σκοπό αυτό η πράξη έχει ενσωματώσει εκπαιδευτικές δράσεις, επιδιώκοντας να ενημερώσει τον επισκέπτη στην περιοχή για το νερό, την οικολογική, την οικονομική και την κοινωνική του αξία προσθέτοντας στα πιο πάνω την οπτική γωνία της κουλτούρας και του πολιτισμού. Στοχεύει επίσης να ευαισθητοποιήσει τον επισκέπτη ως προς τους κινδύνους που απειλούν το νερό και ως προς τον δικό του προσωπικό ρόλο και ευθύνη. Ταυτόχρονα το θέμα νερό προσεγγίζεται και ως φυσικό στοιχείο και μελετώνται οι ιδιότητες και οι δυνατότητες του να συνδιαμορφώσει το περιβάλλον και το ανάγλυφο μιας περιοχής, καθορίζοντας και τους βιοτικούς παράγοντες που αυτή θα φιλοξενήσει. Στο πλαίσιο υλοποίησης της Πράξης WaterWays επιδιώκεται η ενίσχυση των διαθέσιμων εργαλείων εκπαίδευσης και ενημέρωσης ατόμων προσχολικής – σχολικής ηλικίας, αναφορικά με το στοιχείο του νερού και πως αυτό συνδέεται με αξιόλογα προς διατήρηση και ανάδειξη φυσικά και πολιτιστικά στοιχεία της περιοχής δράσης.

## 2. Συμμετοχή και παρουσίαση έργου σε επιστημονικό συνέδριο

Στόχος του Παραδοτέου 2.6.3 αποτέλεσε η προβολή αποτελεσμάτων της Πράξης WaterWays στην επιστημονική κοινότητα, επιτυγχάνοντάς έτσι την ευρύτερη προβολή και ανάδειξη της αξίας της Πράξης και του φυσικού και ανθρωπογενούς περιβάλλοντος της περιοχής επίδρασής της.

Στο πλαίσιο υλοποίησης του Παραδοτέου η ομάδα του Ερευνητικού Κέντρου Frederick απέστειλε προκαταρκτικά περίληψη στο “4<sup>th</sup> ESP Europe Conference” (10-14 Οκτώβριο 2022), το οποίο και έγινε αποδεκτό για συμμετοχή με τη μορφή ανάρτηση παρουσίασης (poster).

Παράρτημα 1: Πρόγραμμα Συνεδρίου

Παράρτημα 2: Ανάρτηση (poster) Πράξης WaterWays

Παράρτημα 3: Περίληψη ανάρτησης

Παράρτημα 4: Φωτογραφίες Συνεδρίου

## Παράρτημα 1: Πρόγραμμα Συνεδρίου

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## POSTER SESSION PROGRAM

This poster session will be held on Tuesday 11th from 17:30-18:30 for online presentations and on Wednesday 12th from 13:30-15:30 for on-site presentations. The list below shows the session and the research stream\* to which the poster abstract is related. We invite all to join the poster sessions.

### \*Research streams

<sup>1</sup>VAL ES Values; <sup>2</sup>TC Transformative Change; <sup>3</sup>FWW The future we want; <sup>4</sup>SFE Shaping our futures through education; <sup>5</sup>OTH Other/Open

## Online presentations

**Tuesday 11th 2022**

**Time of session: 17:30-18:30**

### Timetable speakers

## Biome Working Group Posters (B) 17:35-17:47

### B1 - Plural values of marine and coastal ecosystem services towards sustainable spatial planning and an inclusive governance of marine and coastal systems<sup>1</sup>

ID	Author Name	Title of presentation
B1-1	Volha Kaskevich	Assessment of Green-Blue Infrastructure in the Estonian coastal zone using GIS and Remote sensing

### B5 - Designing Resilient Cities through Ecosystem Service Mapping<sup>1</sup>

ID	Author Name	Title of presentation
B5-1	Maria Panitsa	Aegean small islands and islets ecosystem services of natural and cultural diversity.

### B10 - Designing Resilient Cities through Ecosystem Service Mapping<sup>2</sup>

ID	Author Name	Title of presentation
B10-1	Maria Panitsa	Linking taxonomic and functional diversity of plant species on urban areas with ecosystem services: the case study of the city of Patras (W Peloponnisos, Greece)

## Sectoral Working Group Posters (S) 17:47-17:55

### S5 - Beyond water: understanding the use and impacts of NBS for water management<sup>3</sup>

ID	Author Name	Title of presentation
S5-1	Eva Horváthová	The effect of land cover on drinking water treatment costs in the Czech Republic

### S8d - UNESCO Biosphere Reserves as key areas for new insights into Ecosystem Services assessment, valuation and management<sup>2</sup>

ID	Author Name	Title of presentation
S8d-1	Monika Leuenhagen	Understanding nature use in UNESCO Biosphere Reserves from a social systems theory perspective



## Thematic Working Group Posters (T) 17:55-18:15

### T4b - The power of ecosystem services maps for transformative change<sup>2</sup>

ID	Author Name	Title of presentation
T4b-1	Joana Alves	Assessing ecosystem services as a strategy for sustainable development and adaptation to climate change in vulnerable territories: a pilot study in the Northeast of Portugal

### T9 - Shaping Healthier Cities. Ecosystem Services and Health for a responsive human-nature relations<sup>2</sup>

ID	Author Name	Title of presentation
T9-1	Fátima Alves	A participative socio-environmental management approach for the preservation of marine biodiversity and social economical sustainability. The PPEMBA project (Cabo Delgado, Mozambique)

### T13a - Linking ecosystem services and Nature-based Solutions for more resilient societies & nature<sup>3</sup>

ID	Author Name	Title of presentation
T13a-1	Slaveya Petrova	Assessing ecosystem services of urban green infrastructure in the city of Plovdiv (Bulgaria)

### T18c - Results-based approaches and other integrated models as drivers for ecological conservation and policy integration<sup>1</sup>

ID	Author Name	Title of presentation
T18c-1	Fernanda Fernandes Garcia	Provision of soil ecosystem services by red deer. Lousã mountain as a study case

### T19 - Novel approaches and co-creation of standard protocols for assessing cultural ecosystem services based on social media content<sup>4</sup>

ID	Author Name	Title of presentation
T19-1	Natália Roque	User-friendly platform to use social media data in Cultural Ecosystem Services studies

## Open Session Posters (O) 18:15-18:25

### O3 - Novel contributions to ecosystem service research - from early-career researcher perspectives<sup>5</sup>

ID	Author Name	Title of presentation
O3-1	Fily Diébkilé	Assessing the role of indigenous and local knowledge in the sustainable management of medicinal plants in western Mali.

### O4 - Open topic session<sup>5</sup>

ID	Author Name	Title of presentation
O4-1	Maelys Cadel	Relationships between soil ecosystem services in temperate annual field crops: A systematic literature review



## Thematic Working Group Posters (T)

### T1 - Guidelines, tools and standards for integrated ecosystem services assessments<sup>4</sup>

ID	Author Name	Title of presentation
T1-1	Massimiliano Granceri Bradaschia	Renewable energy policy constraints and ecosystems services trade-offs. A comparative case study for integrated climate mitigation regional planning.
T1-2	Paula Castro	Is spatial analysis the missing link between Life Cycle Analysis and Ecosystem Services? A systematic literature review.

### T3a - The operationalization of ecosystem services indicators: a matter of scale, data, purpose and end-users<sup>1</sup>

ID	Author Name	Title of presentation
T3a-1	Zane Lībiete	The impact of forest structure and management on the availability of non-wood forest products
T3a-2	Zane Lībiete	Approaches and data sources to study some less common cultural forest ecosystem services – results from mini-studies in Latvia

### T3b - Ecological tipping points and societal transformation processes in social-ecological systems<sup>2</sup>

ID	Author Name	Title of presentation
T3b-1	Jana Špulerová	Impact of land use changes on the provision of ecosystem services of grassland (case study from Slovakia)

### T4a - National & large scale MAES projects in Europe - road towards policy uptake and implementation<sup>3</sup>

ID	Author Name	Title of presentation
T4a-1	Joana Seguin	SELINA – Science for evidence-based and sustainable decisions about natural capital
T4a-2	Kremena Gocheva	Semantic and ontological links for data fusion between the MAES ecosystem services paradigm and Whole system socio-ecological research
T4a-3	Madli Linder	Implementation of the results of national MAES in decision making in Estonia

### T4b - The power of ecosystem services maps for transformative change<sup>2</sup>

ID	Author Name	Title of presentation
T4b-2	Valentini Stamatiadou	Marine Protected Areas and Recreational Diving in the Aegean Sea

### T8 - Landscape aesthetic and Cultural Ecosystem Services (CES)<sup>2</sup>

ID	Author Name	Title of presentation
T8-1	Anabela Salvado Paula	Proxy indicators to assess agroecosystems' cultural services: a case study
T8-2	Dimitrios Alexakis	Landscape Quality Indicator Analysis based on Earth Observation Data for Landscape Quality Indicator Analysis: An example from Chania, Crete, Greece
T8-3	Nicolas-George Eliades	Mapping the potential for recreation on a mountainous region: the case of Marathasa region in the Troodos mountain range in Cyprus
T8-4	Paula Castro	The cultural value of Portuguese forests: a case study

### T9 - Shaping Healthier Cities. Ecosystem Services and Health for a responsive human-nature relations<sup>2</sup>

ID	Author Name	Title of presentation
T9-2	Ieva Misiune	Measuring human-nature interactions: comprehensive tool for urban green spaces assessment



### **T13a - Linking ecosystem services and Nature-based Solutions for more resilient societies & nature<sup>3</sup>**

ID	Author Name	Title of presentation
T13a-2	Kati Vierikko	Bringing nature back – biodiversity-friendly nature-based solutions in cities (BiNatUr)

### **T14c - Barriers and success factors for the application of ecosystem services in decision-making<sup>3</sup>**

ID	Author Name	Title of presentation
T14c-1	Zane Libiete	Exploring associative interpretations and values of forest ecosystem services to foster stakeholder dialogue

### **T16a - Ecosystem service valuation to identify investment opportunities, risks, and stakeholders: Experiences from case studies<sup>3</sup>**

ID	Author Name	Title of presentation
T16a-1	Maria Anna Dimopoulou	Assessment and accounting of environmental damage after forest fires in Attica and Ileia regions, Greece
T16a-2	Zita Izakovičová	Conflicts in the use of ecosystem services

### **T17a Ecosystem condition accounting: overcoming operational challenges<sup>1</sup>**

ID	Author Name	Title of presentation
T17a-1	Arron Tippett	Ecosystem accounting - extent and condition accounts of Norwegian coastal habitats.

### **T17b - Moving forward in ecosystem services accounting: From the monetary valuation barrier to the mainstreaming into policy making<sup>1</sup>**

ID	Author Name	Title of presentation
T17b-1	Domenico Pisani	On the investigation of an economic value for forest ecosystem services in the past 30 years: Lessons learnt and future insights from a North-South perspective

### **T17c - Biophysical models for Ecosystem accounting<sup>1</sup>**

ID	Author Name	Title of presentation
T17c-1	Marta Sylla	Biophysical accounting for selected ES provided by the Ślęzański Landscape Park, Poland

### **T18c - Results-based approaches and other integrated models as drivers for ecological conservation and policy integration<sup>1</sup>**

ID	Author Name	Title of presentation
T18c-2	Peter Tramberend	Climate change impacts on land use and ecosystem services
T18c-3	Soukaina Elyaagoubi	Effects of groundwater inputs to the hydraulic circulation, water residence time and salinity in a Moroccan Atlantic lagoon
T18c-4	Zane Libiete	Importance of linear forest infrastructure objects in providing ecosystem (dis)services





## Open Session Posters (O)

### O2 - Biodiversity and ecosystem services in South-East Europe: Research challenges and application issues towards a community of practice<sup>5</sup>

ID	Author Name	Title of presentation
O2-2	Hristina Prodanova	Digitizing the landscape map of Bulgaria at a scale of 1:500 000 for the needs of ecosystem services assessment
O2-3	Maria Glushkova	Assessment and mapping of selected ecosystem services provided by forest ecosystems: the case study of Velingrad Municipality
O2-4	Vanya Stoycheva	Regulating ecosystem services: the cooling effect of urban green infrastructure in the city of Plovdiv, Bulgaria

### O4 - Open topic session<sup>5</sup>

ID	Author Name	Title of presentation
O4-2	Anabela Salvado Paula	From nature to plate: linking wild food and eco-tourism within the Ecosystem Services framework
O4-3	Christos Zoumides	Re-thinking of agri-environmental measures for mountain terraced landscapes: evidence from Cyprus
O4-4	Jamie Jenkins	Regionally extended shared socioeconomic pathways for the offshore wind industry in Finland
O4-5	Marta Sylla	Biophysical accounting for selected ES provided by the Ślęzański Landscape Park, Poland
O4-6	Tim Wenzel	Water distribution and management for safeguarding biodiversity: Consideration of legitimacy, time and scale



## On-site presentations

Wednesday 12th 2022

Time of session: 13:30-15:30

### Biome Working Group Posters (B)

#### B1 - Plural values of marine and coastal ecosystem services towards sustainable spatial planning and an inclusive governance of marine and coastal systems<sup>1</sup>

ID	Author Name	Title of presentation
B1-2	Avi Putri Pertiwi	Earth Observation for Seagrass Blue Carbon Assessment in East Africa
B1-3	Filipa Afonso	The Natural Capital Approach as a way to achieve Sustainable Management Strategies: a case study on Sado Estuary (Portugal)
B1-4	Kremena Burkhard	Co-benefits and risks of carbon sequestration in coastal ecosystems

#### B10 - Designing Resilient Cities through Ecosystem Service Mapping<sup>2</sup>

ID	Author Name	Title of presentation
B10-2	Lucia Almeida	Ecosystem services in the ravine system of Mexico City: Analysis and evaluation proposal
B10-3	Vanya Stoycheva	Regulating ecosystem services in urban ecosystems – a review in the context of urban planning

### Sectoral Working Group Posters (S)

#### S1a - Navigating Natural Capital and Inclusive Wealth for gaining sustainability and wellbeing for the farming community (businesses, supply chain and consumers)<sup>2</sup>

ID	Author Name	Title of presentation
S1a-1	Annely Holm	Restoring the connectivity of seminatural grasslands on Muhu island, Estonia. Example of LIFE project "LIFE connecting meadows".

#### S8c - Revealing the contribution of protected areas to human well-being through the lens of the ecosystem services concept<sup>1</sup>

ID	Author Name	Title of presentation
S8c-1	Alice Bartolini	Evaluating recreational ecosystem services: a case-study of the Torre Guaceto marine protected area
S8c-2	Marios Andreou	Contribution of Troodos National Forest Park to human well-being: An overview during the implementation of iLIFE-TROODOS project

#### S8d - UNESCO Biosphere Reserves as key areas for new insights into Ecosystem Services assessment, valuation and management<sup>2</sup>

ID	Author Name	Title of presentation
S8d-2	Lorena Peña	Integration of ecosystem services in the management of the Urdaibai Biosphere Reserve

#### S10 - Gearing up toward Urban Greening Plans to bring nature back in cities<sup>3</sup>

ID	Author Name	Title of presentation
S10-1	Xi Shu	Needs and expectations of German and Chinese children for livable urban green spaces revealed by the method of empathy-based stories

## Παράρτημα 2: Ανάρτηση (poster) Πράξης WaterWays

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# Mapping the potential for recreation on a mountainous region: the case of

## Marathasa region in the Troodos mountain range in Cyprus

Nicolas-George Eliades<sup>1</sup>, George Kefalas<sup>2</sup>, Roxanne Suzette Lorilla<sup>3</sup>

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<sup>2</sup>International Hellenic University, Department of Forestry and Natural Environment, GR-66100 Drama, Greece

<sup>3</sup>BEYOND Centre of EO Research & Satellite Remote Sensing, IAASARS, National Observatory of Athens, Vas. Pavlou & I. Metaxa, GR-15 236 Penteli, Greece



### Mountainous regions provide diverse ecosystem services

Mountainous regions (areas) are extremely valuable ecosystems, linked with a number of ecosystem services of significant importance for human life. Human well-being is strongly related to the integrity of ecosystems and the services they provided by mountainous regions such as food, water, disease management, climate regulation, spiritual fulfilment, and aesthetic enjoyment. Among the multiple services that well-functioning ecosystems could support, recreation, specifically in forest ecosystems, plays a significant role in developing sustainable management and planning strategies. In the mountainous regions of the Mediterranean islands, where rapid population decline and ageing is usually observed, such actions could be crucial to achieving a sustainable status.

➤ This study aimed to map the recreation potential of the Marathasa's mountainous region, incorporating the local assets and the specific environmental characteristics.

The study area is located in the Troodos Mountain range in Cyprus, in altitudes from 94 to 1709 m, covering an area of 208 Km<sup>2</sup> (equivalent to the 2.2% of the island's area). The methodological framework was based on a multicriteria analysis, considering two main components, namely the biophysical and the cultural component.

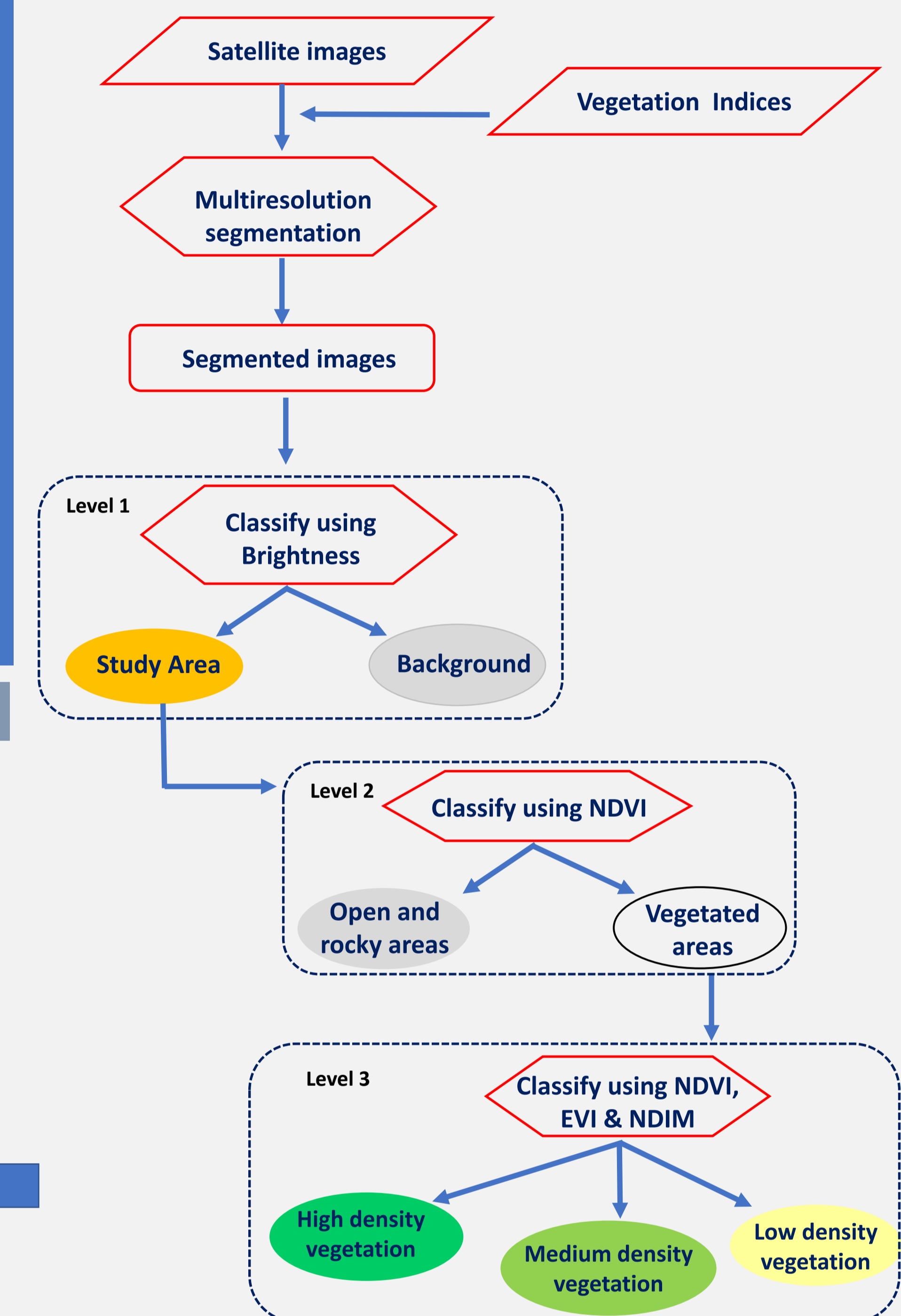
### Methodology

The methodological framework was based on a multicriteria analysis, considering two main components, the biophysical and the cultural component. The former included three criteria of vegetation, landscape diversity, and surface roughness, while the latter combined information on tourist infrastructures, areas/monuments of interest (bridges and watermills), walking/hiking trails and villages.

❖ Landsat images acquired in 1990, 2000, 2010 and 2021 were analysed to identify the land use/ cover types (LULC) and detect changes within the study period of 30+ years. An Object-based Image Classification (OBIA) scheme was developed and applied for each study year to the various LULCs: *High density of vegetation, Medium density of vegetation, Low density of vegetation, Open areas, Urban areas, Water bodies*. As the use of multi-temporal images requires calibration and georeferencing to classify and detect changes, prior to applying OBIA, this study used images at Level 1 (geometric corrections in UTM WGS84 projection), and it applied an absolute atmospheric correction using Dark Object Subtraction algorithm (DOS) in ENVI 5.5 software.

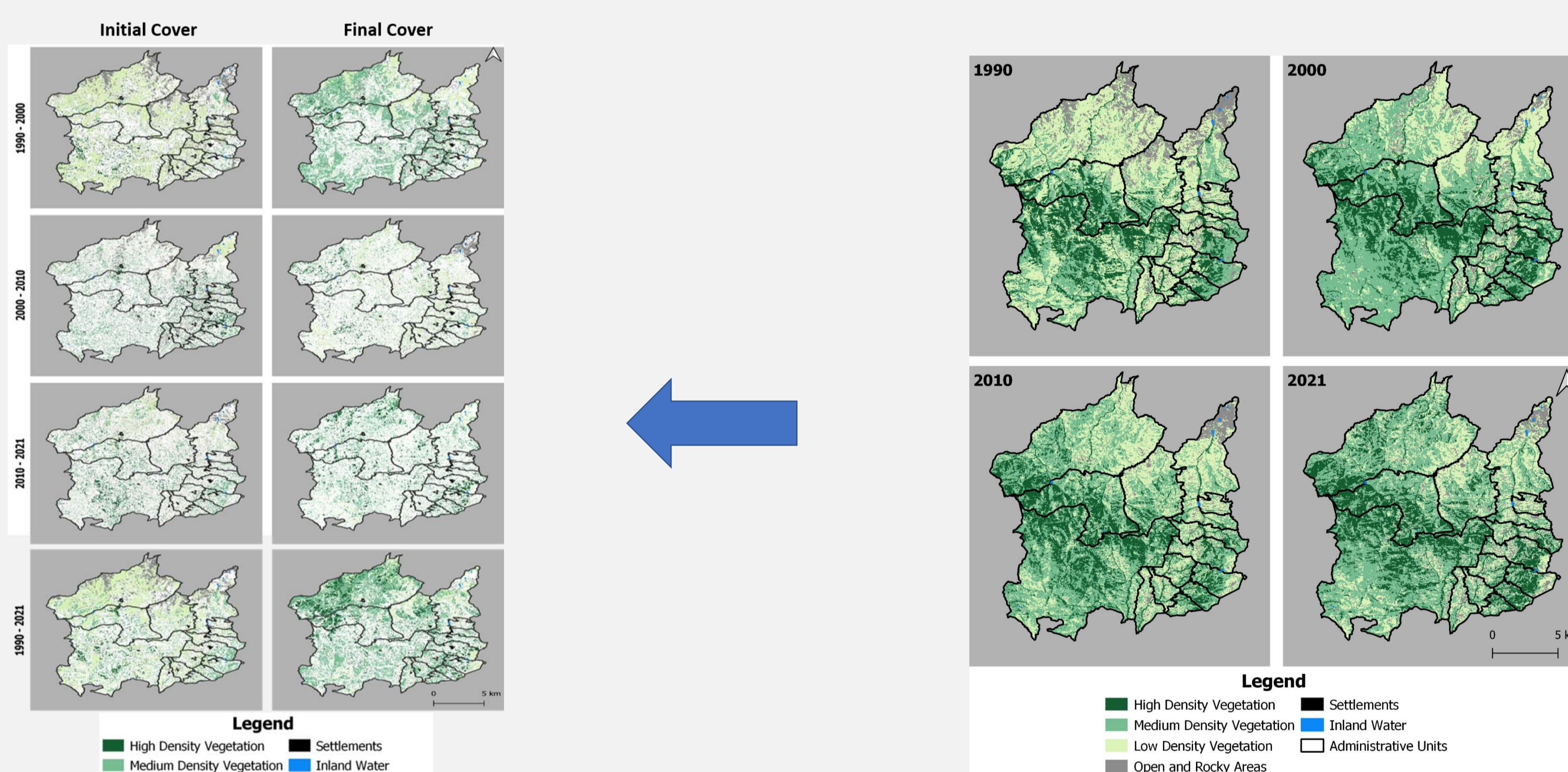
The cultural factor consists of four variables: (i) the existing tourist infrastructure for camping, (ii) the special points of interest (water mills, bridges, monasteries, etc.), (iii) the existing walking routes/paths, (iv) the settlements (e.g. villages, and touristic infrastructures).

❖ The available point and vector geographic data were analysed using Kernel – a density tool of the ArcGIS Pro software, from which gridded files of continuous values showing the density and proximity of the individual elements were extracted.



Hierarchical scheme of classification (filled ellipses are the final results).

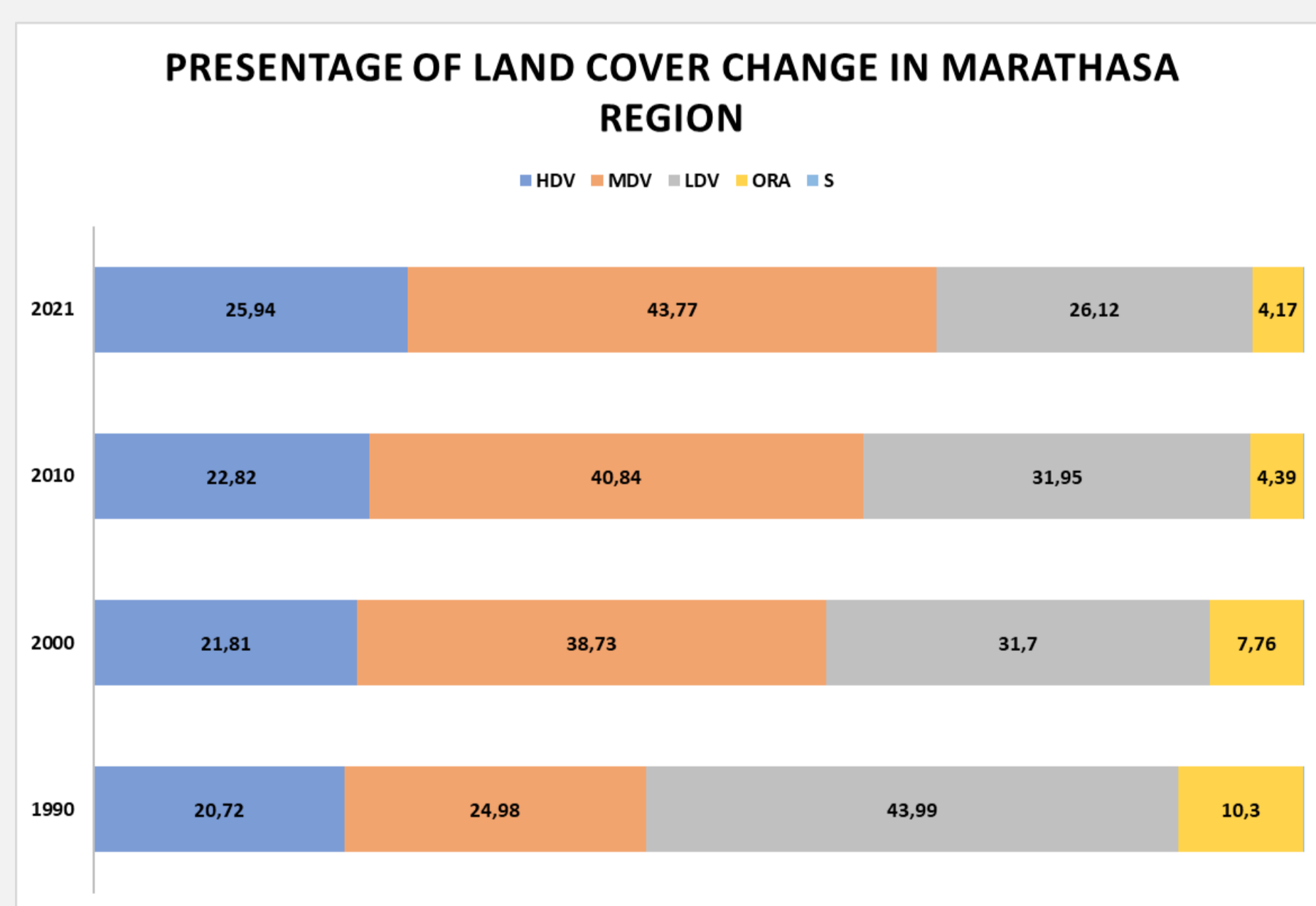
### Results



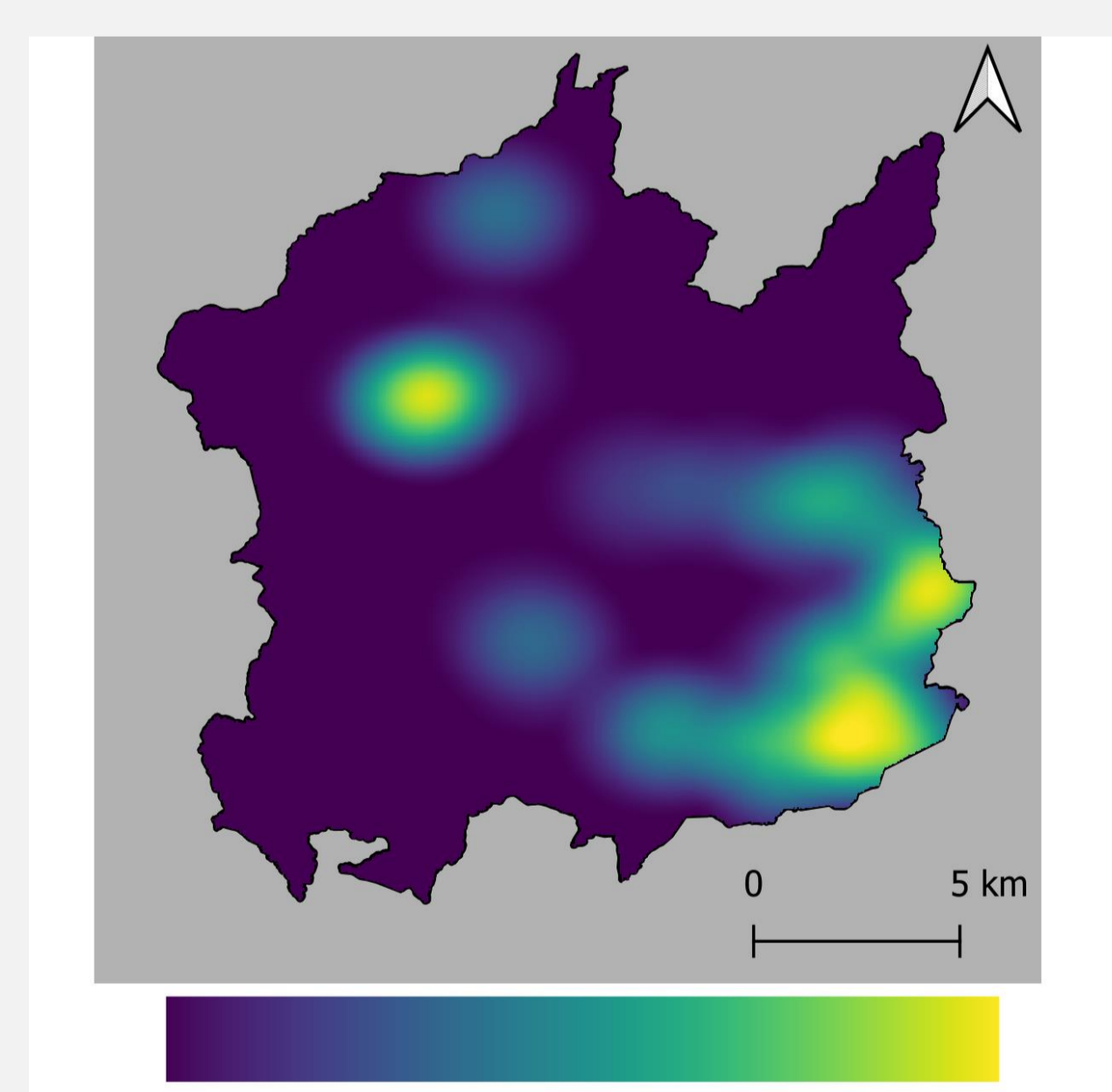
Land cover change in Marathasa region during 1990 to 2021.

Land cover in Marathasa region during 1990 – 2021.

### Mapping ecosystem service of culture factor in Marathasa region

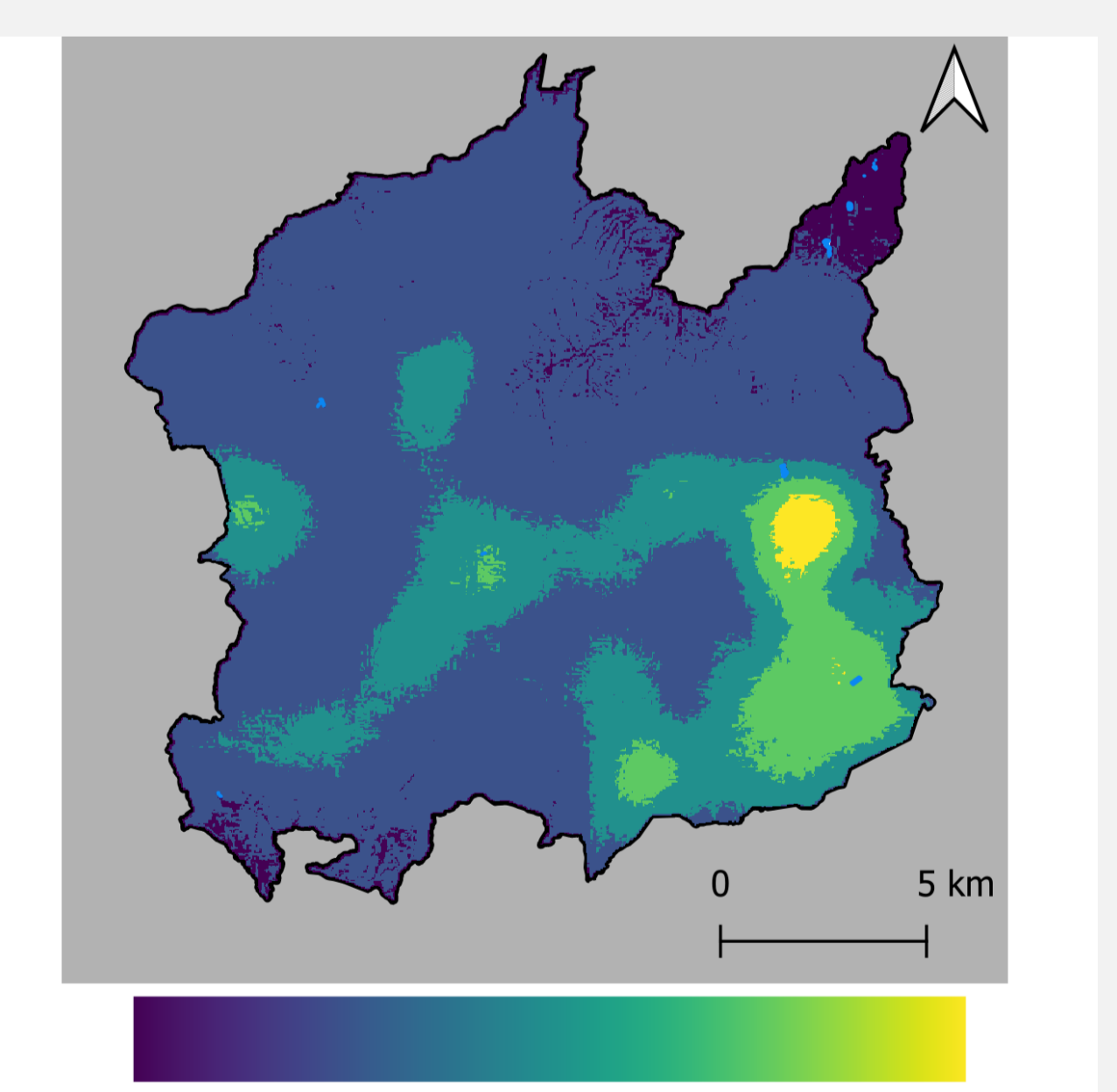


HDV: High Density Vegetation; MDV: Medium Density Vegetation; LDV: Low Density Vegetation; ORA: Open and Rocky Areas; S: Settlements



Low Supply High Supply

Mapping the potential for water provision in Marathasa region.



Low Supply High Supply

Mapping the potential for recreational activities in Marathasa region.

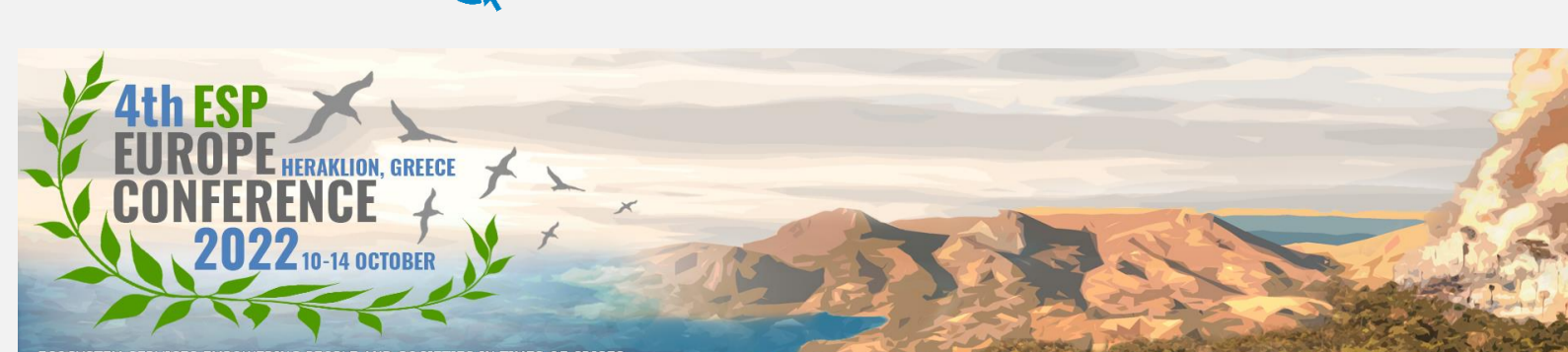
### Conclusion

Land abandonment and especially in mountainous areas can have both positive and negative effects depending on the local context, location and scale. The LULC analysis is a powerful tool for detecting the change in land cover in the temporal and spatial scale, in order to develop sustainable management and planning strategies. Mapping the potential for recreation on these areas is a form of ecosystem services that could directly lead to the sustainable development of mountainous (rural) areas.

Cyprus, being a typical Mediterranean island, the long-term effects of anthropogenic activities and natural processes have strongly shaped its landscape. The water bodies (lakes and rivers) and its archaeological infrastructures (e.g. bridges, water-mills etc.) are environmental and cultural inheritance elements, that could potentially function as resources for recreation. Therefore, conflicting pressures through different economic activities within the limited space of an island constitute major challenges for its sustainable development. Through this study, we attempted to show how mapping and promoting recreational activities can be used for targeted decision-making and improvement of landscape management, ensuring a balance between ecological integrity and social demand for natural resources.

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- Project Partners:**
- Hellenic Mediterranean University (HMU)
  - Municipality of Sitia
  - Foundation for Research and Technology - Hellas (FORTH)
  - Troodos Development Company (AnET)
  - Ephorate of Antiquities of Lasithi (EALA)
  - Frederick Research Center (FRC)



The study was carried out by the WaterWays project.

The project WaterWay is co-funded by the European Union (ERDF) and national funds from Greece and Cyprus within the Cooperation Programme Interreg V-A Greece - Cyprus 2014-2020.

### Παράρτημα 3: Περίληψη ανάρτησης

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## **Mapping the potential for recreation on a mountainous region: the case of Marathasa region in the Troodos mountain range in Cyprus**

Nicolas-George Eliades<sup>1</sup>, George Kefalas<sup>2</sup>, Roxanne Suzette Lorilla<sup>3</sup>

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### **Abstract**

Human well-being is strongly related to the integrity of ecosystems and the services they provide such as food, water, disease management, climate regulation, spiritual fulfilment, and aesthetic enjoyment. Among the multiple services that well-functioning ecosystems could support, recreation, specifically in forest ecosystems play a significant role in developing sustainable management and planning strategies. In the mountainous regions of Mediterranean islands, where rapid population decline and ageing is usually observed, such actions could be crucial to achieving a sustainable status. This study aimed to map the recreation potential of the Marathasa's mountainous region, incorporating the local assets and the specific environmental characteristics. The study area is located in the Troodos Mountain range in Cyprus in altitudes from 94 to 1709m covering an area of 208 Km<sup>2</sup> (equivalent to the 2.2% of the island's area). The methodological framework was based on a multicriteria analysis, considering two main components, the biophysical and the cultural component. The former included three criteria of vegetation, landscape diversity, and surface roughness, while the latter combined information on tourist infrastructures, areas/monuments of interest (bridges and watermills), walking/hiking trails and villages. The results showed that areas with high-quality ecosystems (e.g., dense forests) and numerous cultural sites may offer significant recreation potential and, under specific development strategies, could be characterised as sustainable touristic hot-spots. Cyprus being a typical Mediterranean island, the long-term effects of anthropogenic activities and natural processes have strongly shaped its landscape. Therefore, conflicting pressures through different economic activities within the limited space of an island constitute major challenges for its sustainable development. Through this study, we attempted to show how mapping and promoting recreational activities can be used for targeted decision-making and improvement of landscape management, ensuring a balance between ecological integrity and social demand for natural resources.

**Keywords:** Mediterranean, island, mountainous areas, forest, recreation potential, Cyprus

The study was carried out by the WaterWays project, which is co-funded by the Interreg V-A Cooperation Program Greece - Cyprus 2014-2020

#### Παράρτημα 4: Φωτογραφίες Συνεδρίου

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