



**Technical and methodological references and operational framework for the execution of WP3 and WP4.
PHASE 2 (Ecosystem Context Analysis: recognizing connections within and across ecological and human systems spanning over the focused area).**

Implementation of an Ecosystem-Based Integrated Coastal Zone Management to support the Tyre Coast Nature Reserve (Lebanon).

REPORT of the First, Second and Third Workshops' agendas, Introduction document, attendance sheets and screenshots.

May 2021

Prepared by F. Pella (UNDP Jordan)



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Resilient nations.*



MED4EBM Partner: Tyre Coast Nature Reserve (TCNR), PP5.

Agendas:

- 1) Agenda of the first workshop (26th February, 19th and 23rd March) and the Introduction document of the Workshops: see please Annex 1_English Agenda_TCNR, Annex2_ Introduction_TCNR.
- 2) Agenda of the second workshop (8th and 9th April): see please Annex3_Agenda_TCNR.

Attendance:

First workshop, plenary, 26th February

Participants			
Name	Surname	Organisation / Work Title	Email
Nahed	Msayleb	TCNR/Director/Med4EBM Project Manager	nmsayleb@gmail.com
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First workshop, in presence, 19th March

Participants			
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Samah	Mazraani	Airbnb Glimzi Guesthouse	
Mona	Bahsoun	Airbnb representative of 2 units	
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Hasan	Hamza	TCNR/Assistant-Manager	
Mofeed	Kheshen	Farmer at TCNR Agricultural Zone	
Hamza	Issa	Farmer at TCNR Agricultural Zone	
Ali	Askar	Farmer at TCNR Agricultural Zone	
Youssef	Jundi	Lebanon Diving Center & Boat Operator	lebanondivingcenter@yahoo.com
Kamal	Istanbouli	Cooperative of Tyre Fishermen	
Majed	Bawab	Cooperative of Tyre Fishermen & Boat Operator	
Salam	Moubayed	Cooperative of Tyre Fishermen	
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First workshop, final plenary, 23rd March

Participants			
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Second workshop, first meeting, 8th April

Participants			
Name	Surname	Organisation / Work Title	email
Nancy	Sayar	A.U.B. - Marine Biologist	sayarnancy@hotmail.com
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Second workshop, second meeting, 9th April

Participants			
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Amin	Shaaban	L.U. - Hydrogeology & Geography	geoamin@gmail.com
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Screenshots First Workshop:

First workshop, plenary, 26th February

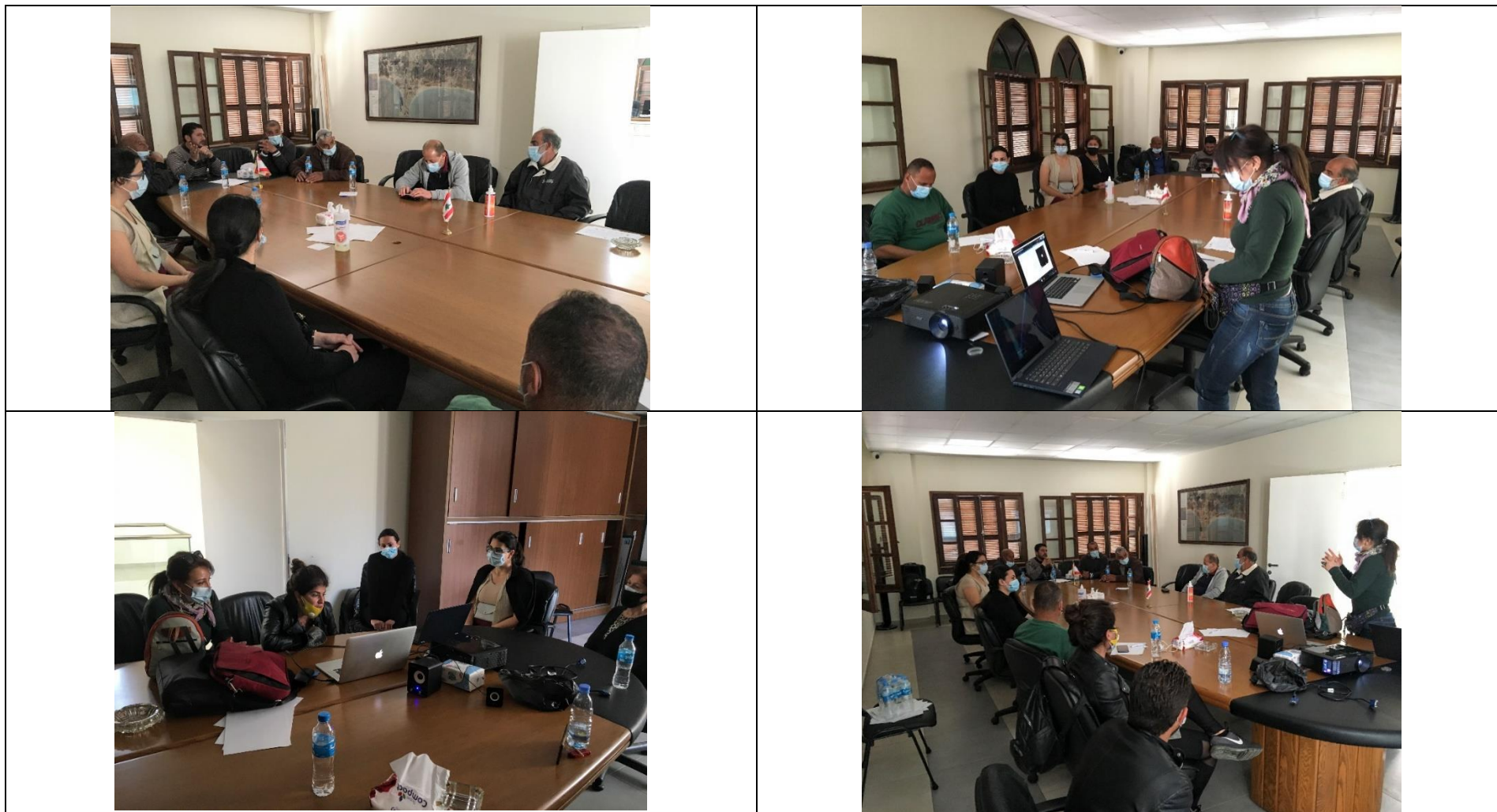
The screenshot shows a Zoom meeting interface. The main window displays a presentation slide with the MED4EBM logo and a diagram of a coastal city. The diagram is divided into four horizontal layers: Ecosystem Services (top, purple), Land Use/Land Cover (green and yellow), Biodiversity (green and yellow), and Landscape Connectivity (green and yellow). Below these layers is a 'Distance Decay' section with a green and yellow background. The slide also features logos for ENI CBCMED, the European Union, and UN DTP. A 'People' list on the right side of the screen shows 21 participants currently in the meeting, including Hussein El Ali (Guest), Assad Eldor, Ataf LIMAM (SPA/RAC), Edoardo Scapi (Organizer), EL SHAER Hany, francesca.pella, Jad Abu Arrage, Jalal Halwani, khalood tubaishat, Marco Francesco Falchetta, Mehdi AISSI (SPA/RAC), Nabrigha (Guest), Nahed Ali Msayleb, Nancy, and Reda Neveu, MedPAN (Invited).

This screenshot shows a Zoom meeting grid with 12 video feeds of participants. The meeting title is 'TCNR EB-ICZM First Workshop' and the time is 10:30 AM Lebanon Time. A 'Participants' list on the right shows 22 participants in the meeting, including Nahed Ali Msayleb, Aida Darghouth Asli (External), Assad Eldor, Ataf LIMAM (SPA/RAC) (External), Edoardo Scapi (Organizer) (External), EL SHAER Hany (External), ENI CBC MED, Eastern MED B... (External), francesca.pella (External), and Hussein El Ali (Guest). The bottom of the screen shows a row of participant icons with initials: +5, EH, N, RK, AE, HA, MA, AL, MN.

The screenshot shows a Zoom meeting with a presentation slide titled 'EB-ICZM: data management'. The slide content includes the text 'EB-ICZM require extensive data collection and the management of large datasets spanning diverse spatial and temporal scales.' It features a blue box with 'EB-ICZM: data management', a 'data collection' section with photos of people in the field, and a 'data handling and analysis' section with a map and a bar chart. The meeting title is 'TCNR EB-ICZM' and the time is 01:01:17. The 'Participants' list on the right shows 20 participants, including Nahed Ali Msayleb, Aida Darghouth Asli (External), Assad Eldor, Ataf LIMAM (SPA/RAC) (External), Edoardo Scapi (Organizer) (External), francesca.pella (External), Hussein El Ali (Guest), and Jad Abu Arrage.

This screenshot shows a Zoom meeting with a presentation slide displaying a complex flowchart or organizational chart with many boxes and connecting lines. The meeting title is 'TCNR EB-ICZM' and the time is 01:37:40. The 'Participants' list on the right shows 14 participants, including khalood tubaishat, francesca.pella, Marco Francesco Falchetta, and Edoardo Scapi. The bottom of the screen shows a row of participant icons with initials: +14, MN, TD, YK.

First workshop, in presence, 19th March



First workshop, final plenary, 23rd March

Top-left screenshot: A photograph of a plant with pink flowers and green leaves growing in a sandy, reddish-brown soil. The title above the image is *Astragalus berytheus*.

Top-right screenshot: A table with the following content:

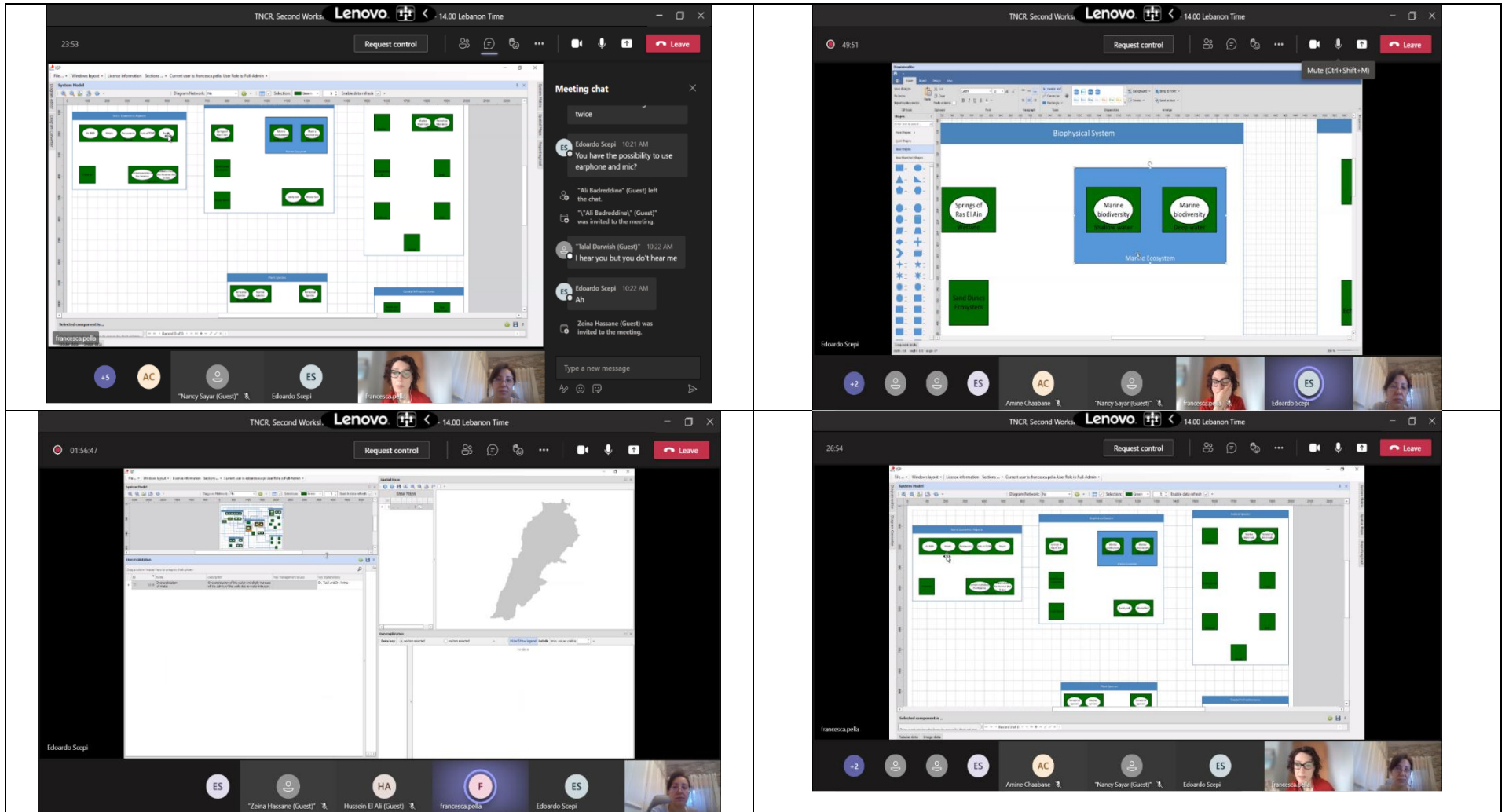
Component	Subcomponent	Description	Key management issues	Key stakeholders
Wetland		Wetland is designated as Ramsar site.	Presence of an invasive plant species <i>Heteropogon subaxillaris</i> , spreading at the expense of the natural wetland flora and threatening the ecosystem's wellbeing. (data to be added)	Institutional management (TCNR management team). Scientific expertise (flora experts). Professor (data provider)
	Springs of Ras El Ain	Springs are located in the Agricultural zone of the reserve, provide domestic water to Tyre city and its suburbs, irrigation water to Ras El Ain lands, and flow out into the sea constituting an Estuary, due to the mixture of salt and fresh waters. Estuary is rich in biodiversity, key environment for fish as well.	- Pollution with agrochemicals. - Possible leakage of formal dumpsite's leachates to the groundwater sources of Ras El Ain. (data to be added)	Farmers (A). Union of Tyre Municipalities (B). OMSAR (B). Ministry of Environment (B). Institutional management (TCNR management team) (A & B).

Bottom-left screenshot: A table with the following content:

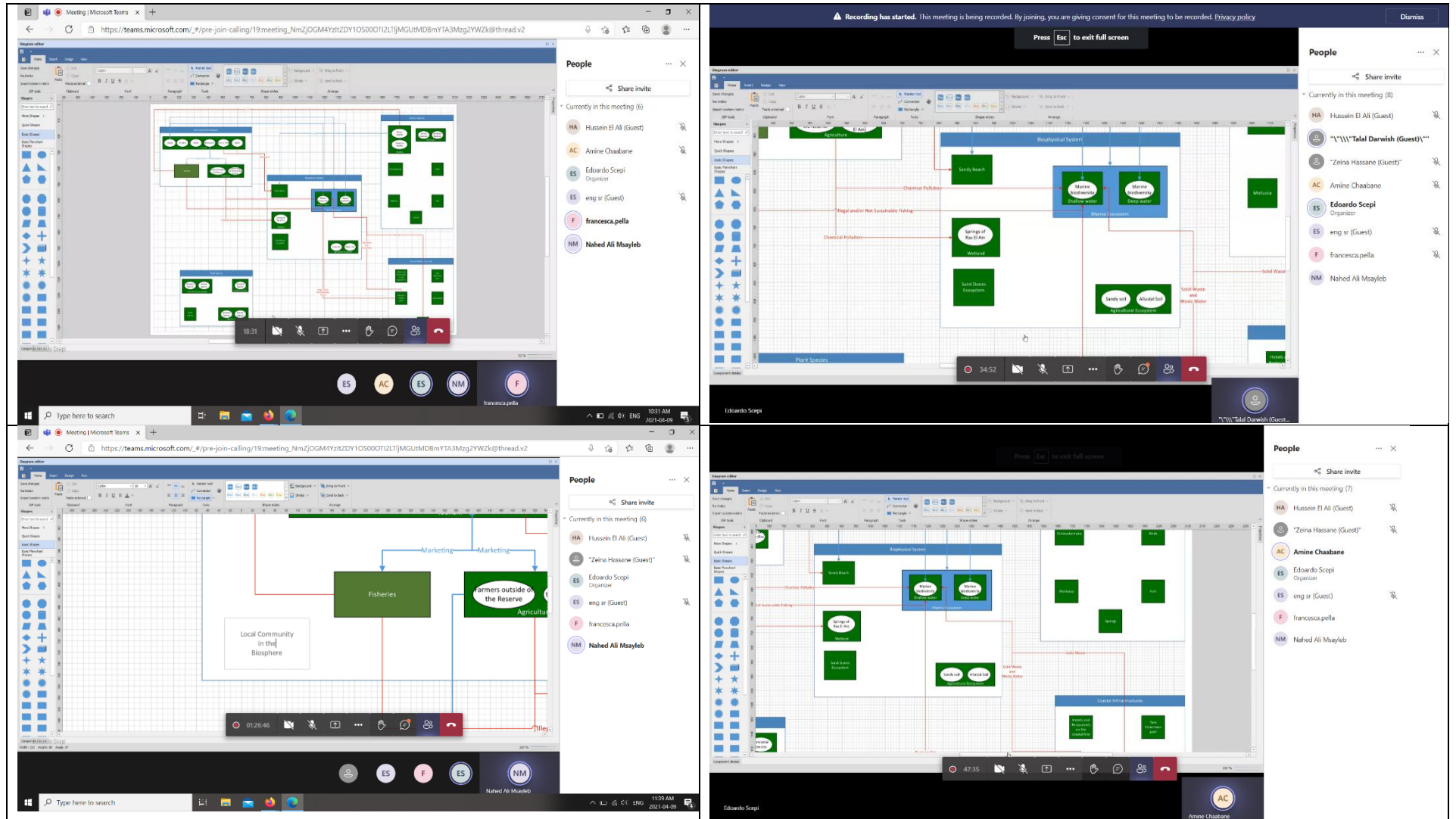
Marine Ecosystem	Shallow water Deep water	Sea water, sea bottom, intertidal zone	southern sides of the beach uncovered by the kiosks' services) by independent tourists who do not abide by the eco-rules imposed on the owners of the kiosks exploiting the beach during the summer.
Agricultural Ecosystem	Sandy soil Alluvial soil	Sandy soil (marine terraces), alluvial soil (mainly clay, upper stream, where citrus are planted) used as irrigated vegetable production directly from the springs. Upper part, citrus and banana, irrigated by wells and mainly from Litani project. (data project.) Agriculture is intensive. Fertilizers and other chemicals are used.	Poorly managed agricultural practices. In particular, seasonal vegetable crops, heavy use of chemicals, consequences in water quality. Additional info are needed (soil composition). Overexploitation of water (no data available). No

Bottom-right screenshot: A map of Tyre city showing cultural tourism routes and paths. The map includes a legend with categories: Secondary attraction, Starting & Ending Points, and Archaeological Site. Numbered locations on the map include: 1. Archaeological Site- El Bass, 2. Tyre Port, 3. The Promenade, 4. The Culture Heritage Fabric, 5. The Old Market, 6. The Reserve & beaches, 7. The Souks & Restaurants, 8. The Old Harbor, 9. The Old Mosque, 10. The Old Hammam, 11. The Old Bath, 12. The Old Well, 13. The Old Fountain, 14. The Old Spring, 15. The Old Cistern, 16. The Old Well, 17. The Old Spring, 18. The Old Cistern. The map also shows the Mediterranean Sea, the Tyre Port, and the Tyre Harbor.

Second workshop, first meeting, 8th April



Second workshop, second meeting, 9th April



The images show a Microsoft Teams meeting interface with a shared diagram on a grid background. The diagram consists of various boxes and connecting lines, representing a complex system model. The boxes include labels such as 'Local Community in the Biosphere', 'Fisheries', 'Farmers outside the Reserve', 'Marketing', 'Agriculture', 'Agri-food', 'Bio-physical System', 'Soil Health', 'Soil Carbon', 'Soil Nitrogen', 'Soil Phosphorus', 'Soil Potassium', 'Soil Sulfur', 'Soil Zinc', 'Soil Copper', 'Soil Manganese', 'Soil Iron', 'Soil Boron', 'Soil Molybdenum', 'Soil Selenium', 'Soil Vanadium', 'Soil Chromium', 'Soil Cobalt', 'Soil Nickel', 'Soil Cadmium', 'Soil Lead', 'Soil Mercury', 'Soil Arsenic', 'Soil Barium', 'Soil Strontium', 'Soil Zirconium', 'Soil Niobium', 'Soil Antimony', 'Soil Tellurium', 'Soil Bismuth', 'Soil Polonium', 'Soil Astatine', 'Soil Francium', 'Soil Radium', 'Soil Actinium', 'Soil Thorium', 'Soil Protactinium', 'Soil Uranium', 'Soil Neptunium', 'Soil Plutonium', 'Soil Americium', 'Soil Curium', 'Soil Berkelium', 'Soil Californium', 'Soil Einsteinium', 'Soil Fermium', 'Soil Mendelevium', 'Soil Nobelium', 'Soil Lawrencium', 'Soil Rutherfordium', 'Soil Dubnium', 'Soil Seaborgium', 'Soil Bohrium', 'Soil Hassium', 'Soil Meitnerium', 'Soil Darmstadtium', 'Soil Roentgenium', 'Soil Copernicium', 'Soil Nihonium', 'Soil Flerovium', 'Soil Tennessine', and 'Soil Oganesson'. The 'People' sidebar on the right of each screenshot lists participants: Hussein El Ali (Guest), Amine Chaabane, Edouardo Scapi (Organizer), eng sr (Guest), francesca.pella, and Nahed Ali Msayleb. The top-right screenshot includes a 'Recording has started' notification and a 'Press Esc to exit full screen' button. The bottom-right screenshot shows the name 'Amine Chaabane' at the bottom of the interface.