



AELCLIC Pathfinder project **DELIVERABLE 1**

**Generation of Local Networks and
Co-definition of Work Plans**

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Climate-KIC

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INTRODUCTION

Rationale

This Deliverable is an edited and improved compilation of Workshop Reports from the different geographical zones included in the AELCLIC (Adaptation of European Landscapes to Climate Change) Pathfinder project: Northern Europe, Atlantic & Alpine Europe, South-Western Europe and South Eastern Europe.

These inputs are attached to the present deliverable as an Appendix, which is organized according to the relevant AELCLIC Work Packages (or “WP”):

- WP2: implementation in NORTHERN EUROPE
- WP3: implementation in ATLANTIC AND ALPINE EUROPE
- WP4: implementation in SOUTH-WESTERN EUROPE
- WP5: implementation in SOUTH-EASTERN EUROPE

The aim of this deliverable is to reflect on the creation of AELCLIC Local Networks and co-definition of Work Plans in every Pilot Landscape of the AELCLIC project.

This deliverable is also displayed in the WEB of the project (<https://aelcllicpathfinder.com/>) for open discussion and feedback.

RESULTS

Workplans

No rigid, pre-defined workplans were considered for each AELCLIC pilot landscape prior to the beginning of the project. Instead, four different workplan typologies were initially considered throughout the whole project, as shown in Table1.

OPTION 1 (3 workshops)	OPTION 2 (2 workshops)	OPTION 3 (2 workshops)	OPTION 4 (1 workshop)
WORKSHOP1 Intro + Co-definition of a Workplan and calendar	WORKSHOP1 Intro + Co-identification of Impacts and Opportunities	WORKSHOP1 Intro + Co-identification of Impacts and Opportunities + Brainstorming potential topics and solutions	WORKSHOP1 Intro + Co-identification of Impacts and Opportunities + Brainstorming potential topics and adaptive solutions + Co-defining of key contents of a LACAP
WORKSHOP2 Co-identification of Impacts and Opportunities	WORKSHOP2 Brainstorming potential adaptive solutions + Co-defining key contents of a LACAP	WORKSHOP2 Elaborating on potential topics and adaptive solutions + Co-defining of key contents of a LACAP	
WORKSHOP3 Co-definition of key contents of a LACAP			

Based on the previously shown options, different workplans were proposed in each Work Package in order to achieve the intended objectives at every pilot landscape, namely and mainly, the co-definition of the key contents of a specific Landscape Adaptation Plan to Climate Change (LACAP hereafter). Usually, this entailed the development in the first place of several potential workplans for the leading pilot landscape in each WP, which served as a first test, and then the fine-tuning and correction of such workplans for the multiplier landscapes, in order to adjust the activities developed in the leading pilot landscape to the local specifics. Among other criteria, the choice of a specific workplan for each specific pilot landscape depended on the desire and availability of the stakeholders. In many cases, choosing between all or some of the options above was one specific activity that took place during the 1st workshop at each pilot landscape. The overall objective was to develop all workshops between March 2019 and October 2019.

Workshops were usually scheduled by agreement with the local or regional authority which was usually involved in their co-organization and that usually hosted the workshop in their own facilities. After the local network was created, sometimes online meeting schedulers such as Doodle were used to define a workshop date. In many cases, discussing and verbally agreeing on the date of the next meeting among all the participants was the last activity performed in a workshop.

In the WP2, a very similar workplan was followed in every pilot landscape, forecasting the development of 3 workshops per landscape (option 1, Table 1). In the other WPs, the developed workplans were more diverse. Workplans based on options 2 and 3 (comprising 2 workshops) were implemented in some pilot landscapes in the WP3, WP4 and WP5. Option D (1 workshop) was also chosen for some pilot landscapes in the WP5. In one case in the WP3, even no workshops took place, strictly speaking, but several small meetings were developed instead.

The next figures show the workplans implemented in each of the WPs' leading pilot landscapes. Their variety exemplifies the flexible approach of the AELCLIC project, and some of the diverse ways in which the activities were organized. The duration and main expected outcomes of each workshop are presented. The workplan carried out in each of the multiplier pilot landscapes can be found on the specific reports in the Appendix.

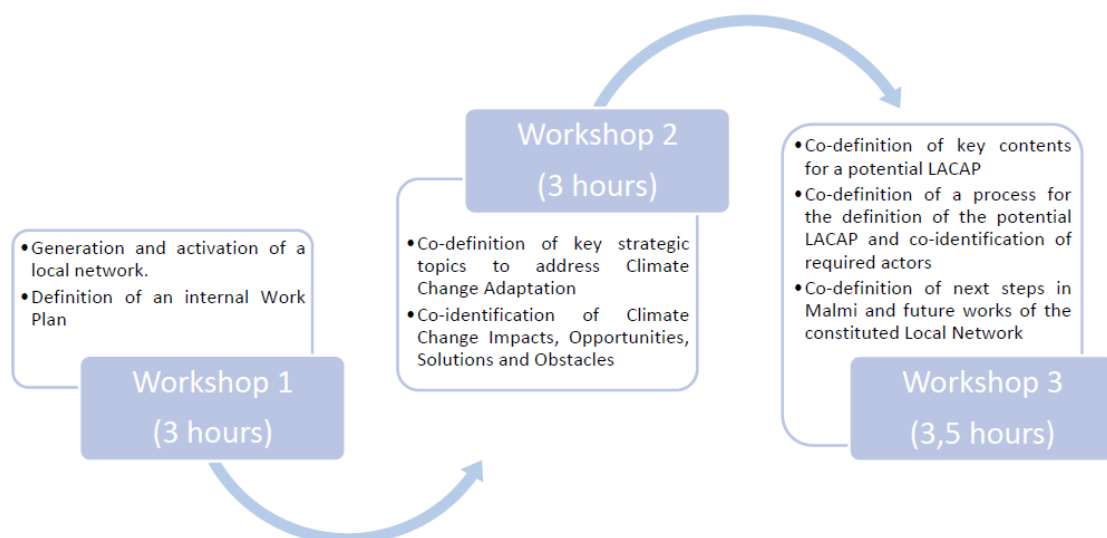


Fig. 1 | WP2 leading pilot landscape (MALMI DISTRICT CENTER) workplan

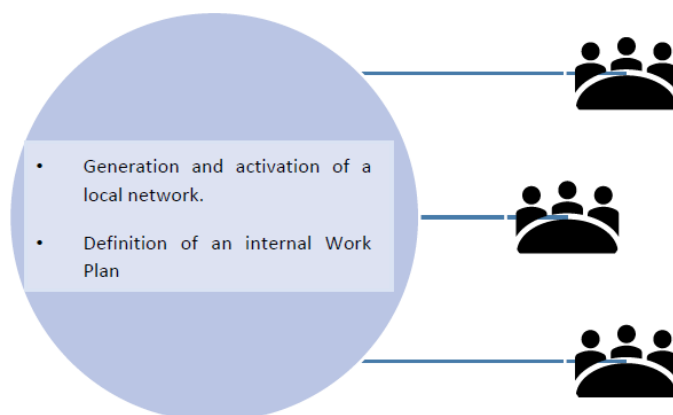


Fig. 2 | WP3 leading pilot landscape (HOLLAND LOWLAND PEAT LANDSCAPE) workplan

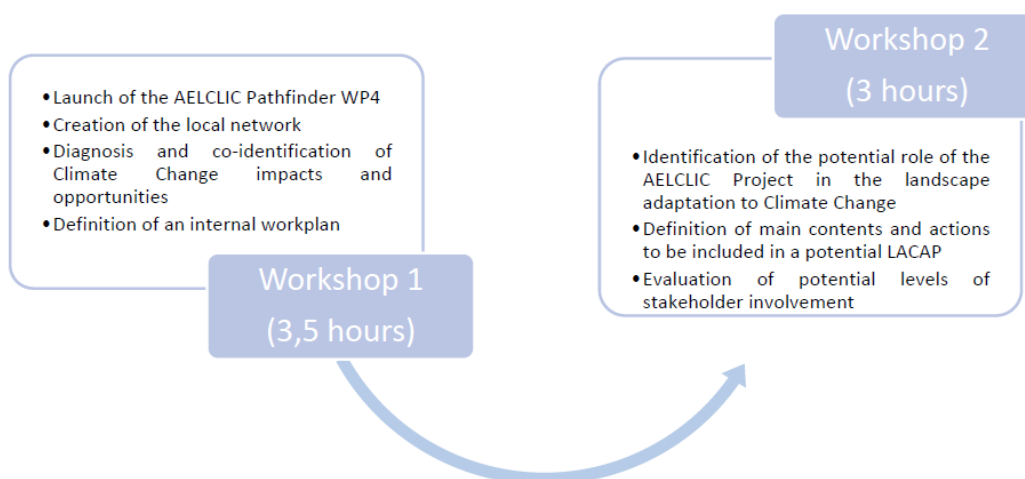


Fig. 3 | WP4 leading pilot landscape (HUERTA DE VALENCIA-ALBORAYA) workplan

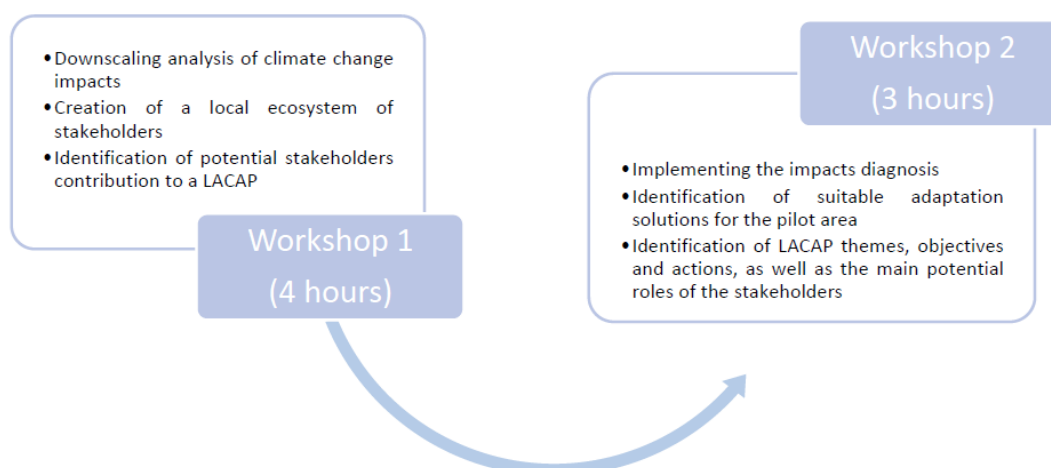


Fig. 4 | WP5 leading pilot landscape (URBAN FRINGE CITY OF BOLOGNA) workplan

Workshops usually started with a series of presentations, in order to provide the necessary background to the participants. Networking with other projects and close collaboration with local and regional authorities or other public organisms made it possible in several occasions to benefit from presentations by experts and representatives from other plans or projects taking place in the pilot landscape. Such collaborations aimed at achieving a better alignment of the potential LACAP with existing plans and projects, or in some case to the direct use of their results in the AELCLIC project and vice-versa, for instance by considering regionalized climate change projections produced by other projects or organisms in the co-identification of climate change impacts.

The presentations were followed by several teamwork activities, in which different methodologies were used, such as brainstorming using sticky notes (with several variations based for instance on the use of the colour of the notes, or the delimitation of different areas or axis in the paper on the flipboard), aerial photographs, maps, open discussion or even the use of an online application (Mentimeter) for the simultaneous management of data and the creation of graphs. Remote participation, for instance via the creation of online forms, was also promoted in some cases to allow contributions by interested stakeholders who could not attend the workshop. A more detailed description of those methodologies is also included in the AELCLIC Deliverable 5.

To participants in the workshops was also offered the opportunity to include their organization details in the pilot landscape local network, in order to display it in the AELCLIC webpage. Many stakeholders agreed by signing (or even confirming via e-mail) the necessary authorization form provided by the organizers.

In order to maximize the impact of the project, several press releases were published. This has been usually planned in order to coincide with critical stages of the corresponding workplan, for instance before or after the development of a workshop. In some cases, press statements were prepared by the project team or their institution's press office, and directly released to the media. In other cases, draft press releases were prepared by the university team and submitted to the co-organizing public organism, which would then review it and send it out by means of their own official communication channels.

Local networks

In order to develop the activities specified in the previous section, the first step was to create the local networks. Some of them were created ad hoc, some other raised on the base of existing networks, depending on the specific characteristics of each pilot landscape. In every case, the objective was to build a strong, representative network, which would be able to develop the designed activities in order to identify the potential specific LACAP contents or actions for their corresponding pilot landscape, as well as the rest of desired outcomes.

To that end, in most occasions, the creation of the local network was promoted by the academic and governmental Climate-KIC partners of each WP based on their existing knowledge of the pilot landscape, previous participatory processes or other sources. This was the case for instance in the leading landscapes of each Work Package. In other landscapes, a local or regional counterpart helped to create a new ad hoc local network, to engage with an existing network, or to combine both approaches (modifying or complementing an existing network in order to better suit the project objectives). Usually, this role of local or regional contact was played by a public authority or organism, which in most of the WPs were the AELCLIC Third Parties. In the WP4 it was not possible to activate the initially established multiplier pilot landscapes, therefore the regional

Third Parties did not play such role. Instead, other local and regional public entities provided the necessary link to the new multiplier landscapes and their stakeholders, thus their invaluable support made the creation or activation of the local networks possible. Just as there was no predefined methodology to establish each workplan, it was also clear from the beginning of the project that there was not any patented recipe or uniform structure for the creation of local networks. On the contrary, they should be adjusted to the characteristics of each pilot landscape. The objective was therefore not to obtain a predefined or established composition, common at every landscape, but to foster flexibility in order to adapt to the landscape conditions and obtain as many different points of view as possible. As the landscape is defined by the European Landscape Convention (2000) according to the way it is perceived by people, AELCLIC project ment to assemble a diversity of landscape perspectives, which in turn would make it possible to identify multiple perceptions on climate change impacts and adaptation options. The ultimate goal was to create valid networks in order to configure and execute each landscape specific workplan, which should include if possible the key identified stakeholders. To this end, a series of stakeholder categories were considered (such as the ones shown in Fig. 5) as reference to guide the creation of local and regional networks fit for the purposes of the project.

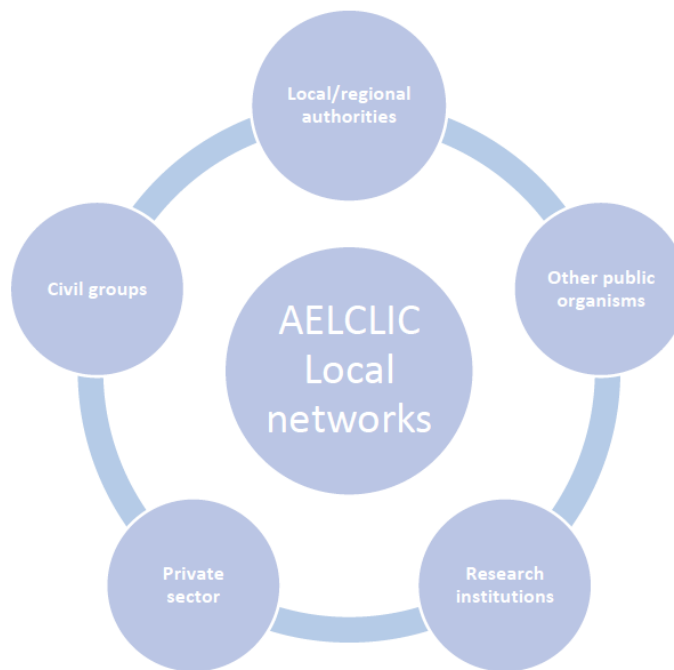


Fig. 5 | Main stakeholder categories considered during the creation or modification of local networks

CONCLUSIONS

Main Shortcomings or barriers identified during the workshops for the full achievement of the expected outcomes:

- The available time was in some cases considered insufficient to identify or engage some stakeholders (especially some crucial authorities and some representatives of the private sector and from different ethnical or social groups).
- Unforeseen circumstances prevented some key stakeholders who had confirmed attendance to take part in some workshops. Some specific groups such as farmers or local authorities might be more prone to these circumstances due to inherent job characteristics.
- In some cases, attendees were not able to confirm the interest of their institutions in being present in the AELCLIC webpage without further approval by their superiors or managers.
- Some actors occasionally excused themselves and left the workshop during the coffee break after having received detailed information about the project objectives and the initial background information on climate change. This could perhaps have been avoided by a better selection of stakeholders.
- Some pilot landscapes have highly specific systems of governance (e.g. those in protected areas) which required more complex prior approval procedures. This required additional flexibility in adjusting the work plans and workshop methodologies.
- Developing joint workshops or sessions with other projects that share similar aims made possible to provide highly detailed knowledge to the attendants regarding the specific territorial situation of the landscape. On one hand, this was extremely beneficial for the further development of the teamwork, but also usually implied an accumulated backlog which diffculted the achievement of the initial objectives. Very strict time management is needed in heavily loaded sessions in order to obtain an adequate balance between the informative presentations and the development of the teamwork.

Main Reasons identified after the workshops for the successful achievement of the expected outcomes:

- The collaboration of every AELCLIC project partner, the active 3rd parties and the leading local institutions in the initial contacts with the key stakeholders in each pilot landscape has been essential for the successful start, public engagement and development of every participatory process.
- Being able to count on local networks at least partially existing, as well as their level of experience, has been a key factor to achieve higher and better participation from every stakeholder category considered.
- The development of joint workshops with other research projects which could be working in the same territorial scope and with similar objectives has increased the representativeness of the local network.
- The development of workshops in adequate facilities, including the necessary space and auxiliary equipment for instance for allowing remote participation, good materials and even details such as providing an adequate catering during the coffee break, allowed a smooth execution of the planned activities, enabling a better workshop facilitation.

- The clear definition of the expected outcomes, good time planning and subsequent adjustment to the schedule were key ingredients to achieve successful results.
- The experience conducted in the leading pilot landscapes in each WP were essential in order to adjust the actual requirements of each workshop activity, both in materials needed as in execution time.
- Good prior preparation of the information materials employed in the workshops, as well as their level of suitability to the workshop needs and the profiles of the stakeholders, or providing precise bibliographic references, increased the participants' interest. It also promoted an enabling environment for the further discussion of the subjects covered during subsequent tasks.
- The participation and help from some local or regional authorities and experts enabled the local network to gain a better understanding of the activities objectives and the effects and impacts of climate change on the landscape. This also led to a better work environment.
- Better linkages among the collaborating partners and the leading institutional stakeholders enabled better participatory processes.
- Workshops activities could either be developed on single groups or in multi-stakeholder groups.
- Local actors were highly active and acknowledgeable regarding the problems related to their local landscape environmental issues.
- In some landscapes, the stakeholders' activities are already regularly affected by climate change, which boosts their urgency to tackle the challenge and to create networks.
- Public dissemination and communication after the workshops by the WP coordinating partners and the local leading authorities was in general highly satisfactory.
- Organisational flexibility regarding the workshops planning processes as well as the consensus reached in each group allowed to optimize and agree a workplan suitable to each local network.

Learnt lessons and recommendations for workshop planning and facilitation

- Workshop invitations should be sent well in advance in order to enable participation from a wider range of stakeholders, who often have busy agendas.
- Workshops should be organized in the most appropriate place available to promote participation from the most sensitive stakeholders in the local network. Access to the facilities should be easy.
- Knowing and analysing beforehand the attendance list allows the preparation and presentation of materials suited not only to the landscape analysed but also to the level and interests of the audience. This is basic to influence the workshop success, measured in terms of final outcomes and impact.
- Developing workshops with local networks which already have a culture and experience of participatory work, and which have been working together for a long time, is also a key ingredient for success.
- The length of the working sessions should be limited, and if possible limited to a maximum around 3 hours.
- The development of joint workshops with other research projects raises the profile of the local networks and enables an adequate trust-building atmosphere for teamwork.

However, it can also face some obstacles if time is not strictly managed or participants become overwhelmed.

- Including a coffee break and the corresponding catering between the most informative part of the workshop and the teamwork session not only facilitates rest but also provides an opportunity to break the ice among stakeholders and facilitators. This can be invaluable to create a relaxed atmosphere and to improve stakeholder engagement.
- Some stakeholders are very interested in sharing their own experience and establishing linkages to other places, in order to benefit from networking at a broader scale.

Workplans implementation assessment

The implemented workplans showed not only differences among WPs, but also different approaches to each Pilot Landscape within the same WP. These differences were established according to reasons such as the interests and availability of the local network or the Pilot Landscape specific needs and governance system. In some cases, the finally implemented workplan implied some delay with regards to the initially agreed project timeline and schedule for the finalization of outputs and deliverables. This was caused by some specific difficulties which were found during the activation process of those landscapes, which even led to the cancellation of five multiplier landscapes and the activation of four new ones.

The following tables show the finally implemented activities per WP and Pilot Landscape. The structure of the Workplan Option 1 (based on three workshops) is shown as a reference, to facilitate comparability among the different followed approaches.

Table 2 | WP2 implemented activities

	WORKSHOP1 "Who" Local Network & Work-Plan	WORKSHOP2 "What for" Co- identification of impacts and opportunities	WORKSHOP3 "How" Co-definition of key contents for a LACAP
MALMI (HELSINKI)	10.5.2019	12.6.2019	29.8.2019
HYYPÄJOKI VALLEY	26.4.2019	14.6.2019	6.9.2019
TORNIO RIVER VALLEY	24.5.2019	30.8.2019	8.10.2019
TØNDER MARSHLANDS	--	--	--

Table 3 | WP3 implemented activities

	WORKSHOP1 "Who" Local Network & Work-Plan	WORKSHOP2 "What for" Co-identification of impacts and opportunities	WORKSHOP3 "How" Co-definition of key contents for a LACAP
LOWLAND PEAT AND POLDER LANDSCAPE OF HOLLAND	--	--	--
BERTRA DUNES SYSTEM	7.5.2019		1.10.2019
HAUTE TARENTEISE	9.10.2019		22.10.2019
MONT SAINT MICHEL	--	--	--

Table 4 | WP4 implemented activities

	WORKSHOP1 "Who" Local Network & Work-Plan	WORKSHOP2 "What for" Co-identification of impacts and opportunities	WORKSHOP3 "How" Co-definition of key contents for a LACAP
HUERTA DE VALENCIA-ALBORAYA	17.6.2019		17.10.2019
RIVER BESÒS	2.10.2019		30.10.2019
SERRES D'ANCOSA	8.10.2019		8.11.2019
PARC NATURAL ALT PIRINEU	4.10.2019	31.10.2019	
LA MATA-TORREVIEJA	25.9.2019		23.10.2019

Table 5 | WP5 implemented activities

	WORKSHOP1 "Who" Local Network & Work-Plan	WORKSHOP2 "What for" Co-identification of impacts and opportunities	WORKSHOP3 "How" Co-definition of key contents for a LACAP
URBAN FRINGE CITY OF BOLOGNA	16.5.2019		18.9.2019
CITY OF MANTOVA	13.5.2019		16.7.2019
CAROL PARK AND FILARET- RAHOVA NEIGHBORHOOD (BUCHAREST)	4.7.2019		
GIARRE- ETNA LANDSCAPE	19.7.2109		

Considering the number of pilot landscapes finally activated per WP, and the differently scheduled Workplans, activities were finally organized in 15 landscapes. A total of 29 workshops were developed, organized according to table 6.

Table 6 | Summary of main activities performed per WP

WP2	WP3	WP4	WP5
<ul style="list-style-type: none"> •3 Pilot landscapes •9 Workshops 	<ul style="list-style-type: none"> •3 Pilot landscapes •4 Workshops 	<ul style="list-style-type: none"> •5 Pilot landscapes •10 Workshops 	<ul style="list-style-type: none"> •4 pilot landscapes •6 Workshops

The level of achievement of the main outcomes of the first workshops developed at each landscape are summarized on the following table, which is based on the assessments included in the reports in the Appendix.

Table 7 | Level of achievement of goals in the main activities performed per WP

MAIN OUTCOMES	LEVEL OF ACHIEVEMENT (From 1 (min) to 5 (maximum))														
	WP2.NORTHERN EUROPE			WP3. ATLANTIC-ALPINE EUROPE.			WP4. SOUTH-WESTERN EUROPE					WP4. SOUTH-EASTERN E.			
	MD	HV	TR	HLP	BS	HTA	HVA	LMT	RB	AP	SDA	BLG	PCFR	ETN	MAN
Creation of the local network for the Pilot Landscape	4	4	4	-	-	-	3	3	4	5	4	5	5	5	5
Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop	5	5	5	-	-	-	5	5	5	-	5	5	5	5	5

(Those outcomes whose level of achievement was not quantified in the related report are marked with a “-“. Abbreviations = MD: Malmi District (Helsinki, FI); HV: Hyppänjoki Valley (Town of Kauhajoki, FI); TR: TORNIO RIVER (Tornio City; FI-SE); HLP: Holland Lowland Peat (La Hague, NL); BS: Bertra System (Galway, IR); HTA: Haute Tarentaise (Bourg St. Maurice; FR); HVA La Huerta de Valencia- Alboraya (Valencia Region, ES); LMT: La Mata-Torrevieja (Valencia Region, ES); RB: Rio Besòs (Catalonia, ES); AP: Natural Parc d'Alt Pirineu (Catalonia,ES); SDA: Serres d'Ancosa (Catalonia, ES); BLG: Bologna (IT); PCFR: Parcul Carol and Filaret Rahova Neighborhood (Bucharest, RO); ETN: Etna (Sicily, IT); MAN: Mantova (IT)).

The societal impact of those activities was often strengthened by the media presence in some workshops, which led to higher public dissemination via press, social networks or even TV. This was promoted and facilitated by the coordination of each WP, e.g. by preparing press releases or even cooperating with journalists in the final editing of reports or pieces about the project and its activities.

Local networks relevance assessment and impact on climate change governance

The bottom-up approach followed throughout the AELCLIC project was since the beginning considered as one of its key points. Rather than the usual top-down approach which has been prevalent in adaptation planning, this strong emphasis in the interests and knowledge of the local networks is seen as an original contribution by the AELCLIC project to climate change governance. Being able to co-identify not only the main climate change impacts in their landscape, but also the opportunities and barriers for their solutions, or the potential ways to address them from a planning perspective, gave the stakeholders a strong empowerment as climate change adaptation agents. This was further reinforced by stressing two facts. On one hand, the consideration of the nature and behaviour of greenhouse gases, mitigation efforts are often only perceived at a global scale, while successful adaptation efforts will clearly benefit at a smaller scale. On the other hand, the recognition of the importance of climate change mitigation, in order to avoid the worst possible impacts of climate change and achieving significant mitigation, success was in some cases exceeding the scope of a local or regional network like the ones that were formed during the

project. However, a network of such scale could make a real difference with regards to the implementation of needed adaptation measures at landscape level.

In each of the pilot landscapes, the further development of a LACAP (Landscape Adaptation Plan to Climate Change) would probably need and benefit from further participatory processes, for instance as established by the relevant local or regional planning regulations. However, the inception of each potentially developed LACAP based on the results of the AELCLIC project would have already been a participatory process. This is considered another significant step towards public engagement in adaptation to climate change, and therefore on the legitimacy, impact and influence of the potentially developed plans.

The local networks created during the AELCLIC Project include more than 100 local organizations. More than 500 participants have taken part in the activities developed across the 15 activated pilot landscapes (see the appendix for details). The participation of local and regional authorities, as well as other public organisms, must be highlighted, since it is seen as a strong indicator of several key aspects. In the first place, the engagement of several public authorities and organisms is a very good demonstration of the potential interest aroused by the project on the public sector. Therefore, it reinforces the importance and necessity of further development of the outlined LACAPs, or their potential assimilation by other plans. In the second place, it shows that the coordination between top-down and bottom up approaches to adaptation planning, or, in other words, between national, regional or local adaptation plans, (promoted by public authorities) and landscape level plans (pushed by local or regional consortia) is seen by the public sector not only as possible but even desirable. In every case, the strong collaboration with the public sector helped to achieve a smooth alignment of the potential LACAPs with other plans and projects. In this regard, landscape level plans were throughout the project considered, for instance, as a way in which adaptation plans promoted by the public sector can be downscaled or coordinated between different administrations with competencies in the same landscape, as will be presented in more detail in future deliverables. In addition to the previous ideas, the fact that successful collaboration bridges with public entities in each landscape have been established is also considered as a key ingredient for the potential development of LACAPs, since these couldn't be further developed without the support from local or regional administrations. These connections with the public sector provided not only the needed administrative or organisational support, but also enabled them to perform an essential role as bridges between the university and institutional partners and the stakeholders of each landscape. Therefore, their invaluable contribution to provide this already mentioned sense of empowerment as climate change adaptation agents to the local stakeholders was two-sided. In helping the local actors to become climate change adaptation agents, some local or regional authorities who hadn't previously worked in adaptation topics in their territories became adaptation agents as well. And this is considered crucial, because this double empowerment could be beneficial for climate change adaptation beyond the own scope of this project, or even of the potential LACAPs that could arise from it. The key local stakeholders are now aware of the importance of adapting their landscapes to climate change, if they weren't before, and have discovered (and even taken part!) a different way in which this could be achieved. Additionally, local and regional authorities who hadn't started adaptation work have now already done it, and therefore the AELCLIC project can be already considered as an activator of climate change adaptation in many areas. These public authorities are furthermore aware not only of different approaches that could be followed, but also that key stakeholders in their areas are now conscious about the need to establish a clear, science-based, flexible roadmap towards climate change adaptation, and will therefore ask them to do so. Therefore, even if adaptation planning in these places doesn't finally take place at a landscape-scale, as proposed in

the frame of this project, it is undeniable that AELCLIC will have played a role on the adaption of these pilot landscapes to climate change too.

Furthermore, it must be emphasised that 14 of the public authorities involved did not only participate in the workshops as stakeholders, or even as invited experts to make a presentation, but also assumed a coordinating and co-organizing role. The next figure summarizes their distribution among the different WPs.

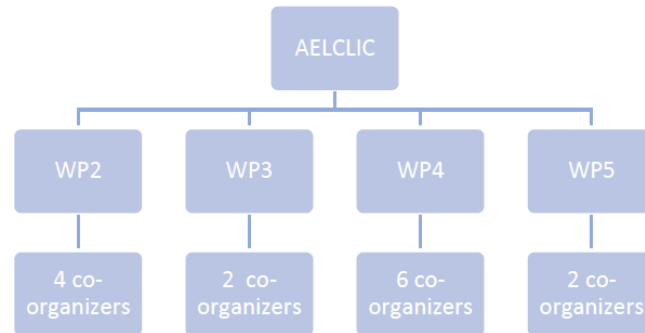


Fig. 6 | Co-organizing public authorities per WP

The interest of the participatory process for the stakeholders which took part on it, and therefore its impact on local and regional climate change governance, can be further assessed by the fact that it created specific results related to the own local networks. Thus, the AELCLIC way of working and the interest in continuing developing the LACAP by means of collaborative work was identified in some of the specific activities as some of the main roles which the project could play in the landscape adaptation to climate change. Even the development of specific climate change communities or boards, which could be seen as the advancement or expansion of the local networks developed during the AELCLIC project, were identified among the potential contents or actions that should be included within some of the LACAPs.

Final remarks

The flexible approach followed in the AELCLIC project regarding workplan definition or local network generation is considered one of its key outcomes that could be taken into account for the development of future projects, in the preparation of the own outlined LACAPS, or in the integration of Climate Change Adaptation inputs into other plans or strategies. Moreover, the knowledge and experience gained in the generation of local networks during the AELCLIC project has a clear potential to be used in other landscapes and regions. Climate change adaptation plans should be flexible, not rigid roadmaps, in order to be able to evolve and adjust to new sciences and knowledges, to the new policies or to the new societal demands. Therefore, at least at landscape level, it is considered that a flexible approach to the preparation of the plan can be also crucial in defining its success.

Each pilot landscape in the AELCLIC project had different impacts or opportunities due to climate change, different stakeholders and governance systems, and different plans or projects approved or being prepared. Therefore, it was clear from the beginning of the project that its ultimate goal couldn't be the definition of a universal LACAP model, appropriate for every landscape, because

each LACAP would address different issues considering not only their root causes but also the way they are perceived by each specific stakeholder.

If each landscape was going to require a different LACAP, then each LACAP itself would need a different workplan. Flexibility is therefore necessary in the process of building adaptation that has to be flexible in itself. But it is not enough to define a flexible workplan, or a flexible LACAP, if both are constructed without the stakeholders. Local networks have been responsible of building the process as well as the LACAPS in such a way that they can meet other basic criterion: that the adaptation plans and their design process do not respond only to the climate that characterizes or will characterize the studied landscapes, but also to their people and their interests.

Thus, the integration of different types of stakeholders was considered essential to provide **legitimacy** to the discussions and proposals developed by the network. This legitimacy was based in the inclusive, transparent, open and democratic functioning of the network and in the participation of key stakeholders already empowered by the local communities to represent them (e.g. local or regional authorities).

In addition, the composition of the local networks was expected to provide the multiples **types of knowledge** and to integrate the complementary, converging or opposing interests required to plan and manage the adaptation and evolution of local landscapes to climate change.

Moreover, the diverse composition of the networks was paramount to ensure the **implementability and feasibility** of the decisions made by the local network. In this point, it was crucial to count with the participation of local and regional administrations, public bodies, private companies, entrepreneurs and representatives from the civil society since the dialogue and cooperation between these groups is completely necessary to develop systemic actions, generate synergies and identify and solve potential conflicts.

Overall, through the subsequent workshops and discussions, the AELCLIC project was expected to test the potential of the landscape concept as an amalgamating platform to promote **new models of governance** for Climate Change Adaptation by integrating public and private initiatives and top-down and bottom-up approaches. This idea is rooted in the European Landscape Convention (2000), in which the landscape is defined as “an area perceived by people whose character is the result of the action and interaction of natural and/or human factors”, as well as in the approach of the authors of the deliverables to the landscape as a socio-ecological, dynamic and adaptive system. Furthermore, thanks to the local networks and the bottom-up project approach, this ingredient of “people perception”, which is by definition essential to the landscape, has been incorporated to the works developed during the AELCLIC Project, and hopefully to the way in which these works could continue in the future.

■ **Appendix**



Northern Europe

ACTIVITY: Workshop1_MALMI DISTRICT (HELSINKI)_PILOT LANDSCAPE

DATE and TIME: 10.5.2019, 9:00-12:00

PLACE: Malmi House

ORGANIZERS:

- Juanjo Galan / Aalto University
- Kirsi Hutri-Weintraub / Aalto University
- Susanna Kankaanpää / Helsinki City

PARTICIPANTS:

- Antti Mentula / City of Helsinki
- Satu Tarula / City of Helsinki
- Laura Yrjänä / City of Helsinki
- Tiia Naskali / The Finnish Association of Landscape Industries
- Merja Carlander / Helsingin yrittäjät, Pohjois-Helsinki ry / Entrepreneurs of Helsinki
- Sirpa Lamminluoto / eQ, Malmin Nova
- Miimu Airaksinen / Finnish Association for Civil Engineers, RIL
- Joel Huotilainen / REDITO, Malmintori
- Andrea Botero / Ninho kulttuurikeskus ry
- Maria Laurila / Malmi association
- Joonas Viita / Neighbour
- Hanna Maidell / Neighbour
- Sari Möttönen / Neighbour

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project.
- Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Malmi District Pilot Landscape

AGENDA:

1. WELCOME / TERVETULOA
2. PRESENTATION OF PARTICIPANTS
3. INTRODUCTION TO THE AELCLIC PROJECT
4. INTRODUCTION TO THE MALMI DISTRICT CENTER VISION (by Antti Mentula (City of Helsinki) and to the HELSINKI CLIMATE CHANGE ADAPTATION & MITIGATION PROGRAMME (by Juanjo Galan (Aalto University) on behalf of Susanna Kankaanpää (City of Helsinki))

Coffee break

5. TEAMWORK
 - a. TASK 1: What are the main values of the Malmi District? / What is important in the Malmi landscape to you or to the sector/community you are representing?
 - b. TASK 2: What do you know about climate change? / How might it affect the Malmi District and your daily life?
 - c. TASK 3: How do you think that the AELCLIC-project can contribute to the MALMI DISTRICT VISION and to the HELSINKI CLIMATE CHANGE ADAPTATION & MITIGATION PROGRAMME
6. NEXT STEPS: Future Workshops and Visibility of the Local Network (webpage)

1. WELCOME

- Welcoming words by Juanjo Galan (Aalto University.) and Antti Mentula (City of Helsinki)

2. PRESENTATION OF PARTICIPANTS

NAME OF CONTACT	INSTITUTION	TYPE OF STAKEHOLDER
Antti Mentula	City of Helsinki (Urban Environment Division)	LOCAL/REGIONAL ADMINISTRATION
Satu Tarula	City of Helsinki (Urban Environment Division)	LOCAL/REGIONAL ADMINISTRATION
Laura Yrjänä	City of Helsinki (Urban Environment Division)	LOCAL/REGIONAL ADMINISTRATION
Tiia Naskali	The Finnish Association of Landscape Industries	PRIVATE SECTOR
Miimu Airaksinen	Finnish Association for Civil Engineers, RIL	PRIVATE SECTOR
Sirpa Lamminluoto	Malmi Nova shopping centre	PRIVATE SECTOR
Joel Huutilainen	REDITO Property Investor, Malmintori	PRIVATE SECTOR
Merja Carlander	Helsingin yrittäjät, Pohjois-Helsinki ry / Entrepreneurs of Helsinki	PRIVATE SECTOR
Maria Laurila	Malmi association	SOCIETAL GROUP
Andrea Botero	Ninho kulttuurikeskus ry	SOCIETAL GROUP
Joonas Viita	neighbour	SOCIETAL GROUP
Sari Möttönen	neighbour	SOCIETAL GROUP
Hanna Maidell	neighbour	SOCIETAL GROUP

CONCLUSIONS:

- The local network includes already a wide diversity of stakeholders but it would be important to increase the presence of the private sector (commerce, small business, shopping malls, etc) and of social groups (especially cultural minorities present in the Malmi District)
- Aalto University and the members of the local network will work to increase the number and diversity of participants

3. INTRODUCTION TO THE AELCLIC PROJECT

- Juanjo Galan (Aalto University) summarizes the goals, methods, structure, schedule and expected outcomes of the AELCLIC-pathfinder project and the reasons that led to the selection of the Malmi District Center as one of the 16 European Pilot Landscapes of the project. In particular, Malmi offers an example of an existing urban area under transformation and can have a huge potential to investigate climate change adaptation in this crucial type of land use)

CONCLUSIONS:

- The AELCLIC-pathfinder project in the Malmi District is presented as an initial step towards a CLIMATE-KIC DEMONSTRATOR project and as an opportunity to include Climate Change Adaptation in existing local or city plans (MALMI DISTRICT CENTER VISION and HELSINKI CLIMATE CHANGE ADAPTATION & MITIGATION PROGRAMME).
- The envisioned CLIMATE-KIC Demonstrator would aim at producing LACAPs (Landscape Adaptation Plans to Climate Change) in those Pilot Landscapes in which a solid local network is defined during the of the AELCLIC-pathfinder project. A solid network should have the administrative, social and economic capacity and commitment to collaborate in the preparation of a LACAP for their district

4. INTRODUCTION TO THE HELSINKI CLIMATE CHANGE ADAPTATION & MITIGATION PROGRAMME and to the MALMI DISTRICTCENTER VISION

- Juanjo Galan (Aalto University) summarizes on behalf of Susanna Kankaanpää (City of Helsinki) the contents of the HELSINKI CLIMATE CHANGE ADAPTATION & MITIGATION PROGRAMME and the

HELSINKI CARBON NEUTRALITY 2035 PLAN. These documents identify in a city scale the key risks and propose the key actions for Climate Change Mitigation (mainly through Carbon neutrality) and Climate Change Adaptation (buildings, public space, green areas, visibility of exemplary actions, collaboration between different urban stakeholders, circular metabolisms, etc.)

- Antti Mentula (City of Helsinki) summarizes the goals, developed analyses, methods and implemented works in the ongoing preparation of the Malmi District Center Vision. This vision is being developed in parallel to a public participation process and is aimed at defining a livelier, multifunctional and sustainable district center. The vision around the Malmi railway station and will be linked to the future urban development of the closed Malmi airport. The AELCLIC project has the potential to incorporate the Climate Change Adaptation and Mitigation theme to and to open new bottom-up processes informing the development of the Malmi District Center Vision

5. TEAMWORK

- TASK 1a: What are the main values of the Malmi district center?

■ URBAN AND CULTURAL DIVERSITY

- Human size (at least in some places)
- There are people, differences
- Lots of new and old
- Diversity
- The landscape of Malmi is diverse - the landscape has different types of settlements, jobs and rail transport. In Malmi there is a lot of life and activity, but on a 'human-sized' scale, as part of everyday life.

■ HISTORY, MIX OF OLD & NEW

- Lots of new and old
- History and layers
- Different layers
- Layers
- Historical buildings
- The historical layer of Malmi: a very long agricultural history, which can be seen at the intersection of the Longinoja and the Latokartanontie. Another important landscape factor is the railway, which tells about connections to other parts of Finland.

■ URBAN NATURE

- Park, greenery
- Green areas
- Green areas + trees
- Little parks

■ TRANSPORT & CONNECTIONS

- Easy to reach by public transport
- Transport connections
- Different vehicles in use
- Accessibility (transport)

■ PUBLIC SERVICES

- Public buildings with services
- Public services
- Services

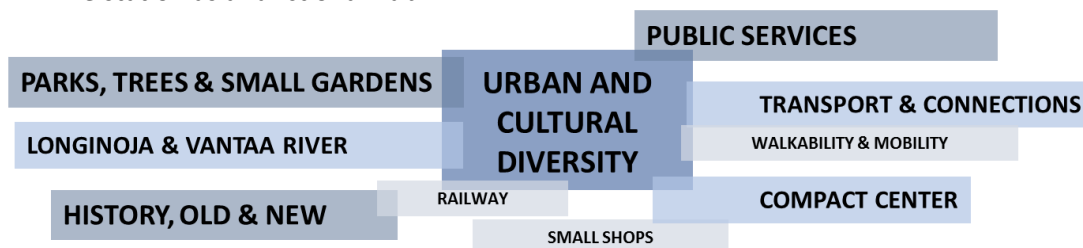
■ COMPACT AND MULTIFUNCTIONAL CENTER

- Different layers
- A compact center, though a bit difficult to approach
- Practicality

■ LONGINOJA & VANTAA RIVER

- Longinoja

- Longinoja valley
- Vantaa river
- **WALKABILITY & MOBILITY**
 - Walking environment
 - Walkability
- **COMMERCE AND SMALL SHOPS**
 - Other than shopping center
- **RAILWAY STATION**
 - The station as a functional hub



- **TASK 1b: What is important in the Malmi district center to you or to the sector/community you are representing?**

- **SERVICES & URBAN STRUCTURE:**
 - Public spaces & buildings
 - Daycare-Malmi, residents malmi
 - Compact but comfortable
 - Swimming pool
 - Malmitalo (community building)
 - Green corridors (e.g. to Longinoja)
 - Cultural offer
- **MOBILITY:**
 - Transport hub
 - Cars + bike + walking
 - Transport connections & public transport
- **URBAN NATURE:**
 - Greenery
 - Connections between green and buildings
 - Green corridors (e.g. to Longinoja)
- **GENERAL QUALITIES:**
 - Versatile
 - With big potential
 - Comfortable
 - Functional
- **DIVERSITY:**
 - Wide range of residents
- **PROBLEMS:**
 - More crossing tubes needed over railway
 - Low visibility
 - Difficult orientation and lack of landmarks



- TASK 2a: What do you know about climate change?

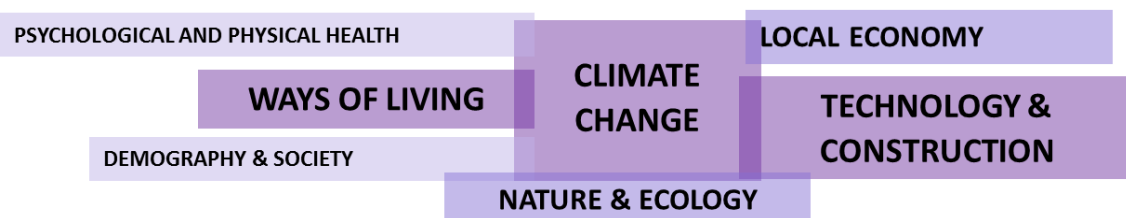
- **EMISSIONS**
 - CO2 is critical
 - Heating & energy
 - Transport & private car
- **POLITICS**
 - Decisions needed & expected
 - Tough discussions
- **WASTE MANAGEMENT & RECYCLING**
 - Food waste
 - Plastic
- **IMPACTS**
 - Extreme weather phenomena
 - Can be tackled
 - Affect to everyone
- **CONSTRUCTION & ENERGY SECTORS**
 - Clean energies to be produced near the point of consumption
 - Heating technologies are evolving
- **URGENT**
- **COMPLEX**
 - Related with ways of living and consumption patterns



TASK 2b: How might Climate Change affect the Malmi district center and your daily life?

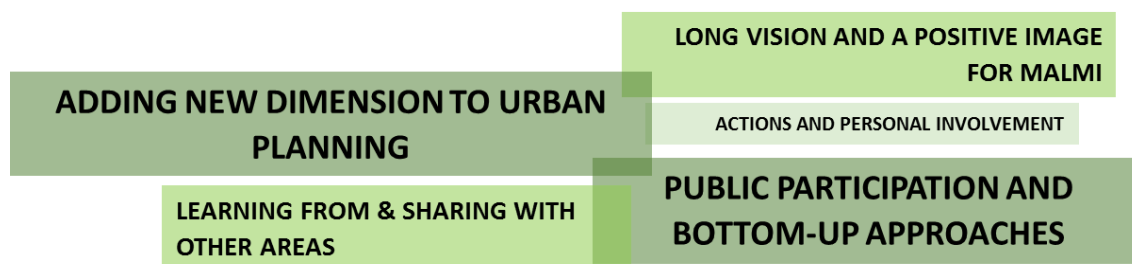
- **CLIMATE CHANGE**
 - Decrease in indoor temperatures
 - Global consequences of weather phenomena
 - Extreme weather phenomena are increasing
 - Rainwater and snow
 - Climate change will have many effects: rainfall will increase, winter time will become darker and summer heat waves will increase. Especially the rainy, dark winter is a challenge that may change the landscape of Malmi. Slippery will increase, which will affect the safety of the movement
- **WAYS OF LIVING**
 - Lifecycle & adaptability
 - "City-Sortti" to the station
 - Water consumption meter per every apartment
 - Evacuee Place? If water level rises?
 - Black ice – barrier to movement?!
 - Own resources, communality, neighbor support, diversity
 - friendly services of climate
 - Environmental requirements rise, recycling, etc.
- **PSYCHOLOGICAL AND PHYSICAL HEALTH**
 - Personal adaptation

- Darkness → affects to mood
- Health, e.g. epidemics
- **DEMOGRAPHY AND SOCIETY**
 - More people (efficiency?)
 - Increasing immigration?
 - For the population, e.g. if there are climate refugees
- **NATURE & ECOLOGY**
 - The nature in Malmi, f.eg. few birds
 - Urban field & nearby nature
 - Longinoja (nearby nature) – runoff
 - In the landscape it may mean a decrease in the flow of Longinoja. That is why Longinoja should get more water.
- **LOCAL ECONOMY**
 - The importance of Malmi increases – e.g.. a traffic hub
 - Changes in Consumption and purchase patterns
 - Maybe more local production opportunities are needed
 - New crises
 - More customers
- **TECHNOLOGY & CONSTRUCTION**
 - Energy renovation (houses, blocks)
 - Materials and coated surfaces
 - New construction is done in an energy efficient way
 - The way to build, comprehensively
 - In buildings
 - Energy production and consumption can, for example, insure facades and streets
 - Storm water control → more streets and parks with permeable surfaces
 - Preparing for storm water management + delay & absorption needed
 - New energy solutions...
- **TRANSPORT & MOBILITY**
 - Better public transport
 - Vehicles / transport
 - Traffic and transport are developing
 - Need for different ways to move/go/transport
 - The importance of rail and light traffic (bike) is strengthened.
 - How to move, go and travel?



- **TASK 3: How do you think that the AELCLIC-project can contribute to the HYYPÄNJOKI CULTURAL LANDSCAPE CONSERVATION & MANAGEMENT PLAN?**
 - **PUBLIC PARTICIPATION AND BOTTOM-UP APPROACHES**
 - Increase information between different groups
 - Arise of different voices
 - Everyday perspective (not just technology solutions)
 - Bottom-up
 - Main-streaming to the citizen-level

- Bringing different groups together
- How the group I represent can take part
- “we are the city”, this is done for us
- Controlled, step-by-step approach to renewing the climate perspective
- **ADDING TO URBAN PLANNING**
 - Adapting to climate change in urban planning
 - Objective approach
 - Producing background materials
 - Historically, a garden town has been planned in the Malmi - Tapanila and Puistola area (from the 1910s to the 1934 recession). Now we should create a renewed garden city concept, which will made possible by the release of an airport area into a residential area
 - Hopefully, with the project, preparing for the effects of climate change will become an integral part of Malmi's planning. The challenges and residents-oriented solutions that will improve comfort, become visible and designers get information
 - Renovation (Not only demolishing)
- **ACTIONS AND PERSONAL INVOLVEMENT**
 - Small acts affect how to live in everyday life in the area
 - “semiprofessional” in voluntary work piloting
- **LEARNING FROM & SHARING WITH OTHER AREAS**
 - Consultation of “experience experts”
 - Sparring other experts
 - Project internal cooperation, examples
 - Pilots can be implemented from the world
 - Project’s internal cooperation, examples
 - Information to pilot areas
- **LONG VISION AND A POSITIVE IMAGE FOR MALMI**
 - Big goals – vision – people , AELCLIC → messenger
 - Long-term placement ->assurance, the desire to operate for a long time in the region
 - Add a positive image to Malmi
 - Promote new innovations in the area



6. NEXT STEPS: Future Workshops and Visibility of the Local Network (webpage)

- It is agreed to organize two workshops more during the AELCLIC-Pathfinder project. The second workshop will take place before July, it will **concentrate** in the co-identification of Climate Change impacts by different local stakeholders and will be accompanied by some introductory lectures explaining the expected Climate Changes in Northern Europe, Finland and Helsinki. The third workshop will take place after the summer and will concentrate on the co-definition of the key contents of a potential LACAP and on the conformation of a solid and competitive local network in order to include the Malmi District center as one of the Pilot landscapes in the application for a Climate-KIC demonstrator project.
- The following participant institutions and individuals confirm their availability and interest in being visible in the webpage of the AELCLIC-Pathfinder project (Malmi District section):

INSTITUTION	TYPE OF STAKEHOLDER	email	NAME OF CONTACT
City of Helsinki / Urban Environment Division	LOCAL/REGIONAL ADMINISTRATION	antti.mentula@hel.fi	Antti Mentula
City of Helsinki / Urban Environment Division	LOCAL/REGIONAL ADMINISTRATION	satu.tarula@hel.fi	Satu Tarula
City of Helsinki / Urban Environment Division	LOCAL/REGIONAL ADMINISTRATION	laura.yrjana@hel.fi	Laura Yrjänä
Suomen Rakennusinsinöörien Liitto RIL	PRIVATE SECTOR	miimu.airaksinen@ril.fi	Miimu Airaksinen
Pohjois-Helsingin yrittäjät/Entrepreneur	PRIVATE SECTOR	merja@merjacarlander.fi	Merja Carlandr
Viherympäristöliitto ry / The Finnish Association of Landscape Industries	PRIVATE SECTOR	sauli.rouhinen@gmail.com	Sauli Rouhinen
Malmi-seura	SOCIETAL GROUP	laurila.m@gmail.com	Maria Laurila
Ninho kulttuurikeskus ry	SOCIETAL GROUP	info@ninho.fi	Andrea Botero
Neighbor	SOCIETAL GROUP	hannamaidell@gmail.com	Hanna Maidell

- A doodle Poll will be organized to schedule the second workshop in the second week of June. All the participants are encouraged to share the Doodle Poll and the invitation to join the local network amongst other individuals, organizations or institutions

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The implementation of the HELSINKI CLIMATE CHANGE ADAPTATION & MITIGATION PROGRAMME in the Malmi District and the generation of additional inputs in the local scale should be two of the most important outcomes of the AELCLIC project in Malmi. Therefore, this Programme should inform and guide the development of the Workshop2 (co-identification of impacts and opportunities) and Workshop3 (co-definition of goals and structure of a future LACAP (Landscape Adaptation Plan to Climate Change)). / ACTION: Develop in a LOCAL SCALE during the Workshop 2 and 3 the key actions and proposals of the Helsinki's Climate Change Adaptation and Mitigation Programme. Relate these local proposals with the development of the Malmi Vision (for instance, by analyzing the existing diagnosis and proposals from a Climate Change Adaptation and Mitigation (Helsinki's Programme) point of view
- The local network in the Malmi District is already constituted but more stakeholders from the research and economic sectors and from different social groups are needed in order to make a more representative and operative network to plan future actions for Climate Change Adaptation and Mitigation. Due to the multicultural and multi-ethnic character of the district, it would be very important to have representatives from different social groups. In addition, it would be crucial to count with the participation of representatives from local commerce (small shops and big shopping malls, and from the construction and real estate sectors) ACTION: Aalto University, the Landscape Observatory of Finland and the local stakeholders will invite more local stakeholders in order to have more participants in the second workshop (June 2019)
- The involvement of the City of Helsinki municipality is especially important to plan future actions and to create a local platform for Climate Change Adaptation / ACTION: give more responsibility to the City of Helsinki in the project.
- The results of the workshop reveal a strong connection between the local community and the Malmi District although the group of participants might not be representative of the whole Malmi community. The participants show a good understanding of complex and abstract urban issues (e.g. urban diversity, resilience, identity, layers, versatility, multifunctionality), probably this is the consequence of their experience in planning or management. Interestingly, most of the inputs do not refer to specific or punctual issues but to systemic and general urban qualities. In addition, the participants indicate the potential of the AELCLIC project to:
 - Implement in a local scale the Helsinki Programme for Climate Change Adaptation and Mitigation
 - Increase public participation and bottom-up approaches in Urban Planning
 - Add a new "Climate Change" layer to urban planning in general and to the Malmi Vision in particular
 - Promote actions and personal involvement
 - Learn from other European areas and share with them the knowledge produced in Malmi
 - Foster long urban visions and provide a better image of Malmi (now highly deteriorated)
- Remarkably and despite their limited capacity to transform physically the urban landscape, the participants of the Malmi workshop show a bolder approach than the participants of other workshops in rural areas. A preliminary conclusion is that they are more used to participate in this kind of activities and that they see themselves more as proponents rather than as implementers whereas in rural areas, the participants perceive themselves as real implementers of Climate Change Adaptation and Mitigation (e.g. by changing agricultural and forestry practices). ACTIONS: Reinforce the exchange of ideas between all the Pilot Landscapes of the AELCLIC-pathfinder project. Invite experts to the workshops 2 and 3 in order to enrich the discussions. Use the points marked in red as key goals for the Workshop3.
- WORKSHOP2: Will be scheduled in the beginning of June / ACTIONS: Aalto University will open a Doodle Poll to set the best possible date and time
- RESULTS of the WORKSHOP1 and visibility of the Local Network in the webpage of the project / ACTION: The results will be processed by Aalto University and displayed in the Webpage of the AELCLIC-pathfinder project (www.aelcllicpathfinder.com)

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 2 (Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Malmi District Center). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o Insufficient time to identify or engage some stakeholders (especially representatives of the economic sector and representatives from different ethnical groups).
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Deep involvement and commitment of the participants
 - o Feasible tasks for the allocated time
 - o Clear guidelines and effective methods
 - o Support from the City of Helsinki (Antti Mentula (coordinator of the Malmi Vision) and Susanna Kankaanpää (Climate Change expert))
 - o Definition of multi-stakeholders groups for the development of the planned tasks
 - o Good understanding of the different stages and expected outcomes of the AELCLIC-pathfinder project and general consensus about the need of having 3 workshops in order to generate and process the information adequately
- **Learnt lessons and recommendations for similar activities in other places:**
 - o See Shortcomings and Barriers
 - o See Main reasons for the successful achievement of the expected Outcomes.
- **Learnt lessons and recommendations for future activities in the same place:**
 - o Increase the connection between the AELCLIC project and:
 - The strategic actions proposed for Climate Change Adaptation and Mitigation in Helsinki
 - The analyzed layers and the initial proposals for the renovation of the Malmi district center
 - o Increase the dissemination of the project and planned activities (use the AELCLIC webpage and the webpages of the collaborative institutions)
 - o Contact in a bilateral way some crucial stakeholders (e.g. economic actors and ethnic/cultural groups)
 - o Prepare and print some informative materials (flyers)
- **Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity:**
 - o The urban character of the area creates a different connection between local inhabitants and their landscape. They concentrate more in abstract and functional qualities since their capacity or agency to modify or manage their physical environment is relatively limited in comparison with people living in rural areas. This situation generates also bolder proposals since the participants feel that they are basically transmitting their ideas to the authorities rather than implementing them themselves. These remarks could be probably applied to other urban areas but in the Malmi case are intensified by the ongoing transformation and by the expectation of upgrading the image of Malmi and making of the district a national reference in sustainable urban planning .

ACTIVITY: Workshop1_HYYPÄNJOKI VALLEY_PILOT LANDSCAPE

DATE and TIME: 26.4.2019, 8:30-12:00

PLACE: Town of Kauhajoki (Finland), Town hall

ORGANIZERS:

- Juanjo Galan / Aalto University
- Kirsi Hutri-Weintraub / Aalto University
- Marketta Nummijärvi / ELY, Centre for Economic Development, Transport and the Environment
- Linda Leinonen / Kauhajoki town

PARTICIPANTS:

- Linda Leinonen / Kauhajoki town (Major)
- Marketta Nummijärvi / ELY, Centre for Economic Development, Transport and the Environment
- Timo Lakso / Regional Council of South Ostrobothnia
- Mikko Rotola-Pukkila / villager, Hyypä village
- Asko Ojala / villager, Hyypä village
- Sulevi Riukulehto / Helsinki University, Ruralia institute
- Niina Tuovinen / The Suupohja Area Health and Social Services Joint Municipal Board / Environmental protection

REMOTE PARTICIPATING TO THE TASKS 1-3 BY EMAIL:

- Riikka Asunmaa / Pro Agria
- Leena Rinkineva-Kantola / ELY, Centre for Economic Development, Transport and the Environment
- Juhani Hallasmaa / ELY, Centre for Economic Development, Transport and the Environment
- Harri Virtanen / Kauhajoki town
- Anna Tall / Seinäjoki University of Applied Sciences

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project.
- Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Hyypänjoki valley

AGENDA:

1. WELCOME / TERVETULOA
2. PRESENTATION OF PARTICIPANTS
3. INTRODUCTION TO THE AELCLIC PROJECT
4. INTRODUCTION TO THE HYYPÄNJOKI CULTURAL LANDSCAPE CONSERVATION & MANAGEMENT PLAN- by Marketta Nummijärvi (ELY/South-Bothnia)

Coffee break

5. TEAMWORK
 - a. TASK 1: What are the main values of the Hyypänjoki river valley? / What is important in the Hyypänjoki landscape to you or to the sector/community you are representing?
 - b. TASK 2: What do you know about climate change? / How might it affect the Hyypä river valley and your daily life?
 - c. TASK 3: How do you think that the AELCLIC-project can contribute to the HYYPÄNJOKI CULTURAL LANDSCAPE CONSERVATION & MANAGEMENT PLAN?
6. NEXT STEPS: Future Workshops and Visibility of the Local Network (webpage)

1. WELCOME

- Welcoming words by Linda Leinonen (Major of the City of Kauhajoki), Juanjo Galan (Aalto University.) and Marketta Nummijärvi (ELY/South Ostrobothnia, Seinäjoki)

2. PRESENTATION OF PARTICIPANTS

PARTICIPANT	SECTOR	INSTITUTION
Linda Leinonen	LOCAL/REGIONAL AUTHORITY	Kauhajoki town
Harri Virtanen	LOCAL/REGIONAL AUTHORITY	Kauhajoki town
Marketta Nummijärvi	LOCAL/REGIONAL AUTHORITY	ELY/South-Bothnia, Seinäjoki
Leena Rinkineva-Kantola	LOCAL/REGIONAL AUTHORITY	ELY/South-Bothnia
Juhani Hallasmaa	LOCAL/REGIONAL AUTHORITY	ELY/South-Bothnia
Timo Lakso	LOCAL/REGIONAL AUTHORITY	Regional Council of South Ostrobothnia
Niina Tuovinen	PUBLIC SECTOR	Suupohjan peruspalveluliikelaitoskuntayhtymä
Anna Tall	RESEARCH	Seinäjoen kaupunki/AMK
Sulevi Riukulehto	RESEARCH	Ruralia-instituutti
Riikka Asunmaa	PRIVATE SECTOR	Pro Agria
Asko Ojala	SOCIETAL ORGANIZATION + FARMERS	Hyypä village society
Mikko Rotola-Pukkila	SOCIETAL ORGANIZATION + FARMERS	Hyypä valley conservation board

CONCLUSIONS:

- The initial local network is promising but it would be important to increase the presence of the private sector (farmers, food industries, services, tourism, etc.) and of societal organizations or social groups (e.g. youngsters, senior citizens, ecologists, etc.)
- Aalto University and the members of the local network will work to increase the number and diversity of participants

3. INTRODUCTION TO THE AELCLIC PROJECT

- Juanjo Galan (Aalto University) summarizes the goals, methods, structure, schedule and expected outcomes of the AELCLIC-pathfinder project and the reasons that led to the selection of the Hyypä river valley as one of the 16 European Pilot Landscapes of the project.

CONCLUSIONS:

- The AELCLIC-pathfinder project in the Hyypä river valley is presented as an initial step towards a CLIMATE-KIC DEMONSTRATOR project and as an opportunity to include Climate Change Adaptation in existing local plans (Hyypänjoki cultural landscape conservation & management plan and Kauhajoki Strategic Plan).
- The envisioned CLIMATE-KIC Demonstrator would aim at producing LACAPs (Landscape Adaptation Plans to Climate Change) in those Pilot Landscapes in which a solid local network is defined during the of the AELCLIC-pathfinder project. A solid network should have the administrative, social and economic capacity and commitment to collaborate in the preparation of a LACAP for their region.

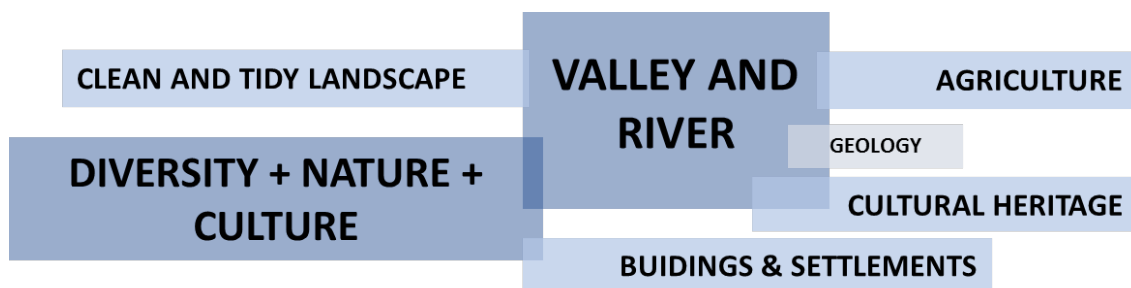
4. INTRODUCTION TO THE HYYPÄNJOKI CULTURAL LANDSCAPE CONSERVATION & MANAGEMENT PLAN

- Marketta Nummijärvi (ELY/South-Bothnia) summarizes the contents of the Hyypänjoki cultural landscape conservation & management Plan.

5. TEAMWORK

- **TASK 1a: What are the main values of the Hyypänjoki river valley?**
 - **A VALLEY! ROLLING LANDFORM / OPENESS + ENCLOSURE / VIEWS**
 - The northern part of Hyypä valley has a kind of an open character whereas the southern part is more enclosed. You can find valley landscape in the region where the northern open land transforms to southern part.
 - Unique topography, character of valley
 - Up-and-down landscape near the meandering river system
 - The contour of the valley and views

- Openness
- **DIVERSITY and VARIETY: A UNIQUE COMBINATION OF NATURE & CULTURE**
 - Valuable landscape complex with geological and biological values and special preserved cultural environment features
 - Variation and fine-feature
 - Versatility: fields, forests, river, channels, buildings, roads, people
 - Diversity: agriculture, maatalous, organism, habitats
 - Special feature of the nature and the landscape, river, biodiversity, open views, topography, ground water
- **CLEAN AND TIDY LANDSCAPE**
 - Unity, cleanliness, conservation of the landscape, respecting the nature values
 - Sharp borders, steep edges
- **GEOLOGY**
 - Geology, it creates the base to the landscape
 - Hyypänmäki is a forgotten treasure
- **AGRICULTURE**
 - Agricultural landscape
 - Living agriculture, other trades
- **CULTURAL HERITAGE**
 - Cultural heritage
 - Oldest house, Hämes-Havunen
- **BUILDINGS & SETTLEMENTS**
 - Built environment, houses, fields
 - Settlement/population sits on a landscape



- **TASK 1b: What is important in the Hyypänjoki landscape to you or to the sector/community you are representing?**
 - **PROTECTED AND RECOGNIZED LANDSCAPE**
 - Value-status, special features
 - Valuation of the landscape, also nationwide
 - Landscape values, nature values, ground water, many nature conservation areas.
 - Cultural landscape with nationwide values, conservation of landscape, preserving the agricultural landscape, it's activity and vitality
 - Cultural landscape with nationwide values, one of the first four conservation of landscape areas in Finland. Special important is the stable interaction between the nature and human activities.
 - **SUSTAINABLE, INHABITED AND CARED LANDSCAPE**
 - Versatility, diversity
 - Clean fields with perfect slope
 - Inhabited and lively landscape
 - **COMMUNITY & SOCIAL CAPITAL**
 - Social capital, community

- Neighbors, partners
- **TRADE**
 - Lively trades
 - Trades
- **TYPICAL BUILDINGS**
 - Houses typical to South-Ostrobothnia
 - Agriculture and architectural heritage preserve
- **BIODIVERSITY**
 - Biodiversity



- TASK 2a: What do you know about climate change?

- **CLIMATE CHANGES**
 - EXTREME WEATHER PHENOMENA
 - Snow cover will reduce, come thinner and the duration will come shorter
 - Mild winters, less frost, less frost in the ground (ROUTA)
 - Increasing of extreme weather phenomena, floods and heat waves, failure of crops, green house gasses emissions, warming, decreasing of biodiversity, loss of water
 - Increasing of the average temperatures
 - One weather phenomenon can last longer, especially in the summer
 - Extreme weather phenomena will be stronger in Northern Europe
- **CO2 EMISSIONS**
 - CO2 has increased in the atmosphere, fossil fuels have been burned, the coal is in the atmosphere
 - There is much to do. CO2 emissions must get to controlled. There is not much time and the whole world must get involved
- **LOCAL IMPACTS**
 - Floods and heat waves, failure of crops, green house gasses emissions, warming, decreasing of biodiversity, and loss of water
- **COMPLEX & UNCLEAR**
 - We do not yet know all effects and combined effects
 - I am aware of the official news but I don't know how this human-made climate change affects to one separate landscape and its future development
 - Basic mechanism and effects. Not very deeply and widely
- **AGRICULTURE**
 - I teach to agrology-students how climate change impacts to agriculture



- **TASK 2b: How might Climate Change affect the Hyypä river valley and your daily life?**

■ **CLIMATE & LANDSCAPE:**

- Rainfall + floods ?
- Loss of snow in the wintertime, landscape
- Impacts of drought and floods can be seen in landscape
- Impacts of climate change can be seen in the landscape in long scale, alien plant species, erosion etc.

■ **AGRICULTURE + NATURE**

- Extreme weather phenomena may have a strong impact into agriculture
- Changing of cultivation conditions
- Extreme weather phenomena are not so critical to cattle breeding
- Drought will affect to cultivation and complicates it
- Decreasing ground frost (ROUTA) complicates f.eg. cultivation of potatoes
- Mild winters and rains → erosion, insect pests and diseases are coming more common, the natural biological control decreases
- Leaching of nutrients
- In public there is going a common “attack” against agriculture and specially against cattle breeding
- Impacts to biodiversity? -→ alien species
- Can species adapt to changes?
- Impacts also to other species as the distribution areas are changing
- Increasing risk of pests
- Forest damages
- Increasing of new and alien plant species
- Through the increasing rainfall, the actual river basin may return closer to its original state, but global warming will change the biology of the area and may endanger the survival of the original species.

■ **PERSONAL LIFE & SAFETY**

- In the winter the darkness experience feels stronger
- Heavy rains & storms → erosion, falling trees and electricity power problems along the village roads & field roads etc. (must prepare with cutting trees forward etc.)
- Skiing decreases as a hobby
- Vegetarianism as a trend is a consequence of preparing to climate change
- Variation of the quantity and quality of drinking water
- Increasing flood risk
- Increasing risk of diseases
- Power cuts caused by storms

■ **LOCAL ECONOMY**

- No more Hyypä-skiing → affects to community
- Affects to the trades of countryside (e.g. agriculture and farming)
- In public there is going a common “attack” against agriculture and specially against cattle breeding
- Vegetarianism as a trend is a consequence of preparing to climate change

■ **ENERGY AND INFRASTRUCTURES**

- Mobility and transport + use of energy
- Difficult road conditions and increasing slipperiness in the winter
- Power cuts caused by storms

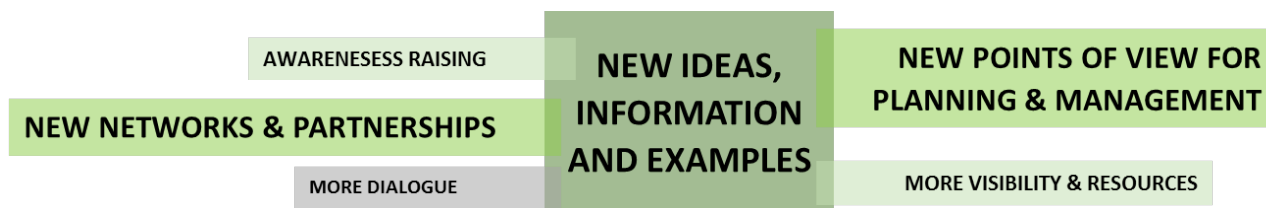
■ **DOUBTS**

- Difficult to say
- I'm not living in the area, so it doesn't affect direct to my daily life



TASK 3: How do you think that the AELCLIC-project can contribute to the HYYPÄNJOKI CULTURAL LANDSCAPE CONSERVATION & MANAGEMENT PLAN?

- **NEW IDEAS, INFORMATION AND EXAMPLES**
 - New perspectives, ideas, tools for conservation of landscape
 - Usable information
 - Experiences from other areas
 - New project ideas
- **NEW POINTS OF VIEW FOR PLANNING & MANAGEMENT**
 - Analysis; threats, opportunities, etc. from the point of view of landscape management due to climate change (construction, flooding, use of non-farming fields, protection of groundwater resources, forest management...)?
 - The threats of climate change will be prevented by using existing resources
 - Develops a presentation on how to adapt to climate change in the landscape area
- **NEW NETWORKS & PARTNERSHIPS**
 - Acquiring new, partners to handle new, identified needs
 - Hyypä out in broader cooperation patterns
 - International cooperation
- **RAISING AWARENESESS**
 - Raising Awareness → Activation
 - Increase awareness of the direct impact of climate change and enable the possibility to evaluate impact and effectiveness of different landscape conservation / measures to be assessed in terms of area development / maintenance.
- **MORE VISIBILITY & RESOURCES**
 - Bring the views of Hyypä area to the general public
 - Impact on resource allocation to the area
- **MORE DIALOGUE**
 - Promoting dialogue



6. NEXT STEPS: Future Workshops and Visibility of the Local Network (webpage)

- It is agreed to organize two workshops more during the AELCLIC-Pathfinder project. The second workshop will take place before July, it will concentrate in the co-identification of Climate Change impacts by different local stakeholders and will be accompanied by some introductory lectures explaining the expected Climate Changes in Northern Europe, Finland and the Hyypä region. The third workshop will take place after the summer and will concentrate on the co-definition of the key contents of a potential LACAP and on the conformation of a solid and competitive local network in order to include the Hyypä river valley as one of the Pilot landscapes in the application for a Climate-KIC demonstrator project.



- The following participant institutions and individuals confirm their availability and interest in being visible in the webpage of the AELCLIC-Pathfinder project (Hyyppä river valley section):

INSTITUTION	LOGO in WEB_AELCLIC	CONTACT	Email CONTACT in web
Kauhajoki Town	YES		
ELY/South-Bothia, Seinäjoki	YES	Marketta Nummijärvi	marketta.nummijärvi@ely-keskus.fi
Regional Council of South Ostrobothnia	YES	Timo Lakso	timo.lakso@etela-pohjanmaanliitto.fi
Suupohjan peruspalveluliikelaitoskuntayhtymä	YES	Niina Tuovinen	niina.tuovinen@llky
Ruralia-instituutti	YES	Sulevi Riukulehto	sulevi.riukulehto@helsinki.fi
Paikallinen asukas-	NO	Asko Ojala	asko.ojala@ssvnet.fi
Paikallinen asukas-maisemhoitokunta	NO	Mikko Rotola-Pukkila	mikko@timantti.com
Seinäjoen museot	YES	Susanna Tyrvainen	susanna.tyrvainen@seinajoki.fi
Pro-agria	YES	Riikka Asunmaa	riikka.asunmaa@maajakotitalousnaiset.fi

- A doodle Poll will be organized to schedule the second workshop in the second week of June. All the participants are encouraged to share the Doodle Poll and the invitation to join the local network amongst other individuals, organizations or institutions

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The local network in the Hyypä river valley is already constituted but more stakeholders from the economic sector and from different social groups are needed in order to make a more representative and operative network to plan future actions about Climate Change / ACTION: Aalto University, the Landscape Observatory of Finland and the local stakeholders will invite more local stakeholders in order to have more participants in the second workshop (June 2019)
- The involvement of the Kauhajoki municipality is especially important to plan future actions and to create a local platform for Climate Change Adaptation / ACTION: give more responsibility to the Municipality of Kauhajoki in the project
- The results of the workshop reveal a strong connection between the local community and their inhabited landscape, which is associated and clearly with the valley of the Hyypä river. Probably, as a consequence of their involvement in the preparation and implementation of the Landscape Protection and Management plan, the local stakeholders perceive the landscape as a complex system in which ecological, cultural and economic processes are deeply interconnected. In addition, the workshop 1 also revealed that the local community is well informed of the consequences of Climate Change, especially in those aspects affecting their economic activities or the security of the properties in the landscape (e.g. farming). Finally, the workshop also revealed the local interest in linking the AELCLIC project with other local and regional plans and its potential to increase the visibility of the valley, to learn and share experiences and solutions with other areas and to get resources for the development and climate change adaptation of the valley. / ACTIONS: Reinforce the exchange of ideas between the Pilot Landscapes of the AELCLIC-pathfinder project. Invite experts to the workshops 2 and 3 in order to enrich the discussions.
- WORKSHOP2: Will be scheduled in the beginning of June / ACTIONS: Aalto University will open a Doodle Poll to set the best possible date and time
- RESULTS of the WORKSHOP1 and visibility of the Local Network in the webpage of the project / ACTION: The results will be processed by Aalto University and displayed in the Webpage of the AELCLIC-pathfinder project (www.aelcllicpathfinder.com)

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - OUTCOME 1 (Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project). LEVEL OF ACHIEVEMENT: 4
 - OUTCOME 2 (Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Hyppänjoki valley). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - Insufficient time to identify or engage some stakeholders (specially representatives of the economic sector and social groups affected by the increasing depopulation of the area (youngsters, senior citizens, etc). A short visit and some bilateral meetings with the Municipality of Kauhajoki and with some stakeholders would have helped to have more participants.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - Deep involvement and commitment of the participants
 - Feasible tasks for the allocated time
 - Clear guidelines and effective methods
 - Support from Marketta Nummijärvi (coordinator of the Hyppänjoki valley Landscape Protection and Management Plan)
 - Definition of multi-stakeholders groups for the development of the planned tasks
 - Existence of a local network with a good knowledge of the Hyppänjoki valley landscape as a consequence of their participation in the Hyppänjoki valley Landscape Protection and Management Plan and in the nomination of the Hyppänjoki valley as Finnish Candidate for the award of the European Landscape Convention 2013
 - Good understanding of the different stages and expected outcomes of the AELCLIC-pathfinder project and general consensus about the need of having 3 workshops in order to generate and process the information adequately
- **Learnt lessons and recommendations for similar activities in other places:**
 - See Shortcomings and Barriers
 - See Main reasons for the successful achievement of the expected Outcomes.
- **Learnt lessons and recommendations for future activities in the same place:**
 - Increase the dissemination of the project and planned activities (use the AELCLIC webpage and the webpages of the collaborative institutions)
 - Contact in a bilateral way some crucial stakeholders (e.g. economic actors and social groups)
 - Prepare and print some informative materials (flyers)
- **Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity:**
 - The rural character of the area creates an especially deep connection between the local inhabitants and their landscape. They seem to be more aware of the many environmental and social processes that might be affected by Climate Change and many of them are land owners playing a central role in the management and transformation of the landscape. All these factors, make locals more cautious when proposing changes or making decisions which could affect their capacity to manage their land and sustain their livelihoods. These remarks could be probably applied to other rural areas but in the Hyppä case are intensified by the official recognition of the Hyppänjoki valley as one of the valuable cultural landscapes of Finland since this gives to the local community a role of stewards of a unique landscape.

ACTIVITY: Workshop1_TORNIO RIVER (FINLAND-SWEDEN)_PILOT LANDSCAPE

DATE and TIME: 24.5.2019 (12:30-15:30)

PLACE: Tornio City Hall (Tornion kaupungintalo)

ORGANIZERS:

- Juanjo Galan / Aalto University
- Kirsi Hutri-Weintraub / Aalto University
- Sampo Kangastalo / Tornio City

PARTICIPANTS:

- Sampo Kangastalo / Tornio City
- Anu Rautiala / Tornio City
- Aapo Mäenpää / Tornio City
- Göran Wigren / Haparanda City
- Tiina Elo / Lapin Liitto
- Riikka Pyykkö / The Museum of Tornio Valley
- Virve Sallisalmi / Tranboundary river commission
- Marika Saranne / Lapin ammattikorkeakoulu
- Anne-Mari Söderström / MTK
- Petri Leinonen / Farmer
- Martti Isto / Farmer
- Markku Vaaraniemi / Fisherman

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project.
- Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Tornio River Pilot Landscape

AGENDA:

1. WELCOME / TERVETULOA
2. PRESENTATION OF PARTICIPANTS
3. INTRODUCTION TO THE AELCLIC PROJECT (by Juanjo Galan (Aalto University))
4. INTRODUCTION TO TORNIO-HAPARANDA and EXISTING REGIONAL, LOCAL AND DETAIL PLANS (by Sampo Kangastalo (Municipality of Tornio) and by Göran Wigren (Municipality of Haparanda)).

Coffee break

5. TEAMWORK
 - a. TASK 1: What are the main values of the Tornio river valley? / What is important in the Tornio river valley landscape to you or to the sector/community you are representing?
 - b. TASK 2: What do you know about climate change? / How might it affect the Tornio river valley and your daily life?
 - c. TASK 3: How do you think that the AELCLIC-project can contribute to the existing plans for Tornio and Haparanda?
6. NEXT STEPS: Future Workshops and Visibility of the Local Network (webpage)

1. WELCOME

- Welcoming words by Timo Nousiainen (Major of Tornio), Göran Wigren (Municipal planner from Haparanda) and Juanjo Galan (Aalto University.)

2. PRESENTATION OF PARTICIPANTS

NAME OF CONTACT	INSTITUTION	TYPE
Sampo Kangastalo	Tornio City	REGIONAL/LOCAL ADMINISTRATION
Anu Rautiala	Tornio City	REGIONAL/LOCAL ADMINISTRATION
Aapo Mäenpää	Tornio City	REGIONAL/LOCAL ADMINISTRATION
Göran Wigren	Haparanda City	REGIONAL/LOCAL ADMINISTRATION
Tiina Elo	Lapin Liitto	REGIONAL/LOCAL ADMINISTRATION
Riikka Pyykkö	The Museum of Tornio Valley	PUBLIC BODY
Virve Sallisalmi	Tranboundary river comission	PUBLIC BODY
Marika Saranne	Lapin ammattikorkeakoulu	RESEARCH
Anne-Mari Söderström	MTK	ECONOMY SECTOR
Petri Leinonen	Farmer	ECONOMY SECTOR
Martti Isto	Farmer	ECONOMY SECTOR
Markku Vaaraniemi	Fishers	ECONOMY SECTOR

CONCLUSIONS:

- The local network includes already a wide diversity of stakeholders but it would be important to increase the presence of other economic services (tourism, services, commerce, etc.) and of societal organizations or social groups (hunters, ecologists, youngsters, senior citizens, etc.)
- Aalto University and the members of the local network will work to increase the number and diversity of participants

3. INTRODUCTION TO THE AELCLIC PROJECT

- Juanjo Galan (Aalto University) summarizes the goals, methods, structure, schedule and expected outcomes of the AELCLIC-pathfinder project and the reasons that led to the selection of the Tornio River Valley as one of the 16 European Pilot Landscapes of the project. In particular, the Tornio was chosen based on its location in the highly sensitive Boreal area, on its exceptional environmental and cultural values, on its transnational character and on the deep connections between local economy and natural landscape.

CONCLUSIONS:

- The AELCLIC-pathfinder project in the Tornio River valley is presented as an initial step towards a potential CLIMATE-KIC DEMONSTRATOR project and as an opportunity to include Climate Change Adaptation in existing regional local or detail plans.
- The envisioned CLIMATE-KIC Demonstrator would aim at producing LACAPs (Landscape Adaptation Plans to Climate Change) in those Pilot Landscapes in which a solid local network is defined during the of the AELCLIC-pathfinder project. A solid network should have the administrative, social and economic capacity and commitment to collaborate in the preparation of a LACAP for their respective area.

4. INTRODUCTION TO TORNIO-HAPARANDA and EXISTING REGIONAL, LOCAL AND DETAIL PLANS

- Sampo Kangastalo (Municipality of Tornio) and by Göran Wigren (Municipality of Haparanda) explain the history, present and future plans for the municipalities of Tornio and Haparanda and their increasing cooperation (e.g. in tourism, urban planning, education, etc). In particular, the presentation includes:
 - o TORNIO- (FI) – VISION 2027

- TORNIO-HAPARANDA-VISION 2020
- TORNIO TOURISM MASTERPLAN
- Urban Plan for the Border Area_TORNIO-HAPARANDA 202X
- General and Detail Plans of Tornio and Haparanda
- Flood protection plan

CONCLUSIONS:

- The presented plans offer a wide variety of scales and topics for the AELCLIC project, from the detail plan for a new and climate change adapted urban area between Tornio and Haparanda, to more general strategies for the towns of Tornio and Haparanda or for the river Tornio floodplains. Therefore, one of the first goals of the AELCLIC project will be to defined more precisely the physical scope of the project.

5. TEAMWORK

- **TASK 1a: What are the main values of the Tornio river valley?**

RIVER & WATER:

- "crystal" water
- Natural state of the river
- Free river
- Free running river
- Clean water
- Free river
- Cleanliness – water
- Wide river valley view
- Flood meadows
- Ice breaking in the spring
- Free water system
- Rising spring flood Nature, the river landscape comes out nicely around the city center of Tornio
- River landscape, hills behind, agriculture on both sides of the river
- River, islands and of course the cultivated river banks

OPEN and NATURAL LANDSCAPE:

- Wide space
- Hill landscape
- No windmills
- Wide space
- Open landscape
- Wide river valley view
- Flood meadows
- Long views + openness of the landscape
- Natural character
- Nature (vulnerable)
- Fish fauna
- Fauna: fishes, birds, wild animals, domestic animals
- Seasonal rhythm in the nature
- Cleanliness – nature

LIVING IN THE FAR NORTH:

- Freedom
- Beautiful
- Cleanliness
- Openness
- Winter, snow, ice
- Northern light
- Midnight sun shining parallel to river valley
- Seasons + light of the spring
- Ice breaking in the spring

CULTURE & NATURE:

- Kukkolankoski
- Culture and nature together
- Traditions
- Authentic traditional landscape
- Rural-like environment
- Layers of cultural environment
- Preservation of the cultural heritage
- Agriculture on both sides of the river

TOWNS & VILLAGES:

- Villages
- Old buildings
- Lively villages
- History of the settlement
- Connections between settlements and the river. the river landscape comes out nicely around the city center of Tornio

BETWEEN BORDERS:

- "life" on both sides of river
- Uniqueness – not built, border crossing

SEA:

- Archipelago barren landscapes and sea
- Sea – gate to the world



- **TASK 1b: What is important in the Tornio river valley for you or for the sector/community you are representing?**

CULTURAL LANDSCAPE/ENVIRONMENT

- Relics
- Harmony of the landscape
- Cultural landscape
- Traditional landscape
- Preservation of an ancient field and meadow landscape
- Cultural values of the landscape
- Old traditional livelihoods
- Immaterial cultural heritage

TOWNS & VILLAGES

- Buildings
- Traditional houses
- Regeneration of the culture
- Not too much sporadic settlements
- Clean yards
- Constructions fitting to the landscape and buildings outside the flooding area

BETWEEN BORDERS

- Friendship cross the river
- River connects, not divides
- Common landscape for people in the Tornio Valley, Finland + Sweden
- 'specific local' culture on the both sides of the valley

- Freedom to go/travel between landscapes (borders)
- Preserving cultural heritage

OPEN and NATURAL LANDSCAPE

- Biodiversity
- Openness of the landscape
- Conservation of the landscape
- Fish fauna

FEELINGS, PEOPLE & COMMUNITY:

- Freedom
- Stories of people
- People with self-respect
- No litter

RIVER & WATER

- Flowing waterway
- Floods - both positive and negative

SUSTAINABILITY

- The intelligent use of natural resources and also appreciation of natural resources. The aim of the regional development work is to take into account nature and the opportunities it offers, for example to increase the comfort of people living in the area

LOCAL ECONOMY

- Travel and recreation



- TASK 2a: What do you know about climate change?

CLIMATE CHANGES:

- Extreme phenomena
- 2 times faster in the Arctic, 1.5 C to 5 C
- Increase in temperature
- Unstable winter
- Air warms up
- Water warms up
- Extreme phenomena of the weather are increasing
- Unpredictability of the weather
- Too much and too little
- Winters are milder than before
- Extreme phenomena are increasing
- Winds, storms are getting stronger
- Droughts
- Not necessarily real winters or snow anymore
- Climate is changing - even we want or not - human effect

CAUSES & MITIGATION:

- CO2 produced by us
- Consumption, industry, disregard for the environment
- Humans responsibility
- Human activities throughout the globe causes climate change. Much more than we do here, but we are all responsible.
- Big actions are needed to make the change even slower.

- Sum of many factors to be influenced at many different levels. Climate change is affecting and will have an increasing impact on the lives of all of us on earth and the consequences will only be strengthened
- There is a strong focus on CO2 emissions and the aim is to lower the concentration in the atmosphere. In addition, a new concern is the increasing methane in the atmosphere, which also have an impact on the climate

SOLUTIONS: POLITICS, ECONOMY & WAYS OF LIVING:

- Transnational cooperation is important
- Predictability disappears
- New generations get an adaptation task
- Annual ground frost will become shorter > affect to forestry and tree cutting
- Annual ground frost will become shorter > the damages to the infrastructure
- Businesses, cities, municipalities, organizations and individuals need to become more aware of the impact of their choices and actions on the climate

ECOSYSTEMS:

- Reducing Diversity
- Diseases and Pests
- Extinction
- Invasive species
- Affects water through different forms, "Heavenly Rivers"
- New invasive species, old ones move up

DOUBTS:

- Is there a normal or abnormal variation? Cp. ice age
- Common in news etc. , fact or hype?
- Trump doesn't believe
- Weather and climate are often mixed up

WELLBEING & HEALTH:

- Increased risk of disease
- Psychological problems as the environment changes
- Pandemic increase?

RIVER:

- Floods will probably decrease in Tornio river

SEA:

- Water surface rise



- **TASK 2b: How can climate change affect the Tornio river valley and your daily life?**

LOCAL ECONOMY:

- Agriculture and forestry benefit?
- Forestry - pests, storms, soft, wet forestland and roads, harvest/cutting time shortens
- More floods and more often big/wide floods
- Winter will delay, affects also to tourism as trade
- Fish does not rise (to river) / The condition of the salmons, the warm water - the negative thing
- The difference between the seasons (no clear differences between the seasons). This will affect northern Finland, there is going to be warmer summers and winters, also the soil and its vegetation and organisms will also change. This may allow, for example, the cultivation of novel plants in the area, but may also mean increasing pests.

- Winters are no longer as before, plants change, the river warms up and is no longer suitable for salmon

ECOLOGY AND ECOSYSTEMS:

- Distribution areas of plants will change - a positive thing
- Distribution areas of plants will change - a negative thing
- Impoverishment of nature?
- Forest growth accelerates
- No more distinct seasons
- Season of the snow cover may shorten and the river may stay unfrozen even in the winter

PEOPLE, WELLBEING, HEALTH & SAFETY:

- Climate refugees
- The fight against slipperiness is increasing
- Different weather phenomena can be seen in daily life - walking, living, dressing
- The ski season becomes shorter – a horrible idea
- Snow season shortens - The amount of light does not increase - mental nausea
- Season of the snow cover may shorten and the river may stay unfrozen even in the winter

CONSTRUCTION AND TECHNOLOGY:

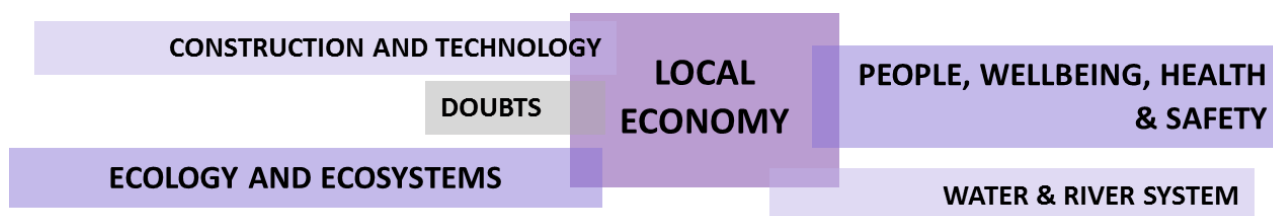
- Construction becomes more difficult on the riverside
- The need for deepening the sea-lane is diminished due to rising sea levels
- Carbon sinks
- The need for maintenance of buildings and infrastructure - humidity, wind
- Regulations of construction become tighter

WATER & RIVER SYSTEM:

- Nutrient runoff > water quality?
- The water level varies
- More floods and more often big/wide floods
- In addition to the spring and midsummer floods, also autumn flood in the future

DOUBTS:

- Absurd decisions
- Speed of Change cp. Adaptation - conflict?
- Changes have also occurred in Finland due to climate change.



- **TASK 3: How do you think that the AELCLIC-project can contribute to the future PLANS OF TONIO AND**
Promote new innovations in the area

LEARNING & SHARING

- Collect local facts
- Importing information and good practices from the world
- Global examples / solutions
- Academic knowledge is important
- Visibility > awareness > action
- Giving information about the impacts of climate change in Tornio river valley.
- Surveying and compiling changes in the area makes it possible to get ready. Adaptation takes time and in particular it is good to prepare for raising people's awareness, The change will have an impact on various trades, the municipal sector and industrial activities, so adaptation work will have to be done on many levels and with different factors.

AWARENESS RAISING AND ACTIVATION OF LOCAL COMMUNITY

- Information → action to prevent
- Increase interaction between different groups
- Give some hope...?
- Interaction and networks
- Including various stakeholders: environmental groups, fishermen, farmers, tourism, etc.

- Public awareness (rising). Opportunity for information and motivation

MAKING TORNIO MORE VISIBLE

- 'Export' information about the area and making it visible

ADAPTATION OF LOCAL ECONOMY

- New business opportunities

HEALTH & WELLBEING

- Mental adaptation also involved?

AGGRAVATING THE PROBLEM

- Knowledge adds pain



6. NEXT STEPS: Future Workshops and Visibility of the Local Network (webpage)

- It is agreed to organize two workshops more during the AELCLIC-Pathfinder project. The second workshop will take place in August, it will **concentrate** in the co-identification of Climate Change impacts by different local stakeholders and will be accompanied by some introductory lectures explaining the expected Climate Changes in Northern Europe, Finland and the Tornio river valley. The third workshop will take place in late September and will concentrate on the co-definition of the key contents of a potential LACAP and on the conformation of a solid and competitive local network in order to include the Tornio river valley as one of the Pilot landscapes in the application for a Climate-KIC demonstrator project.
- The following participant institutions and individuals confirm their availability and interest in being visible in the webpage of the AELCLIC-Pathfinder project (Tornio river valley section):

INSTITUTION	NAME OF CONTACT	email
Tornio City	Sampo Kangastalo	sampo.kangastalo@tornio.fi
Haparanda Stad	Göran Wigren	goran.wigren@haparanda.se
Lapin Liitto	Tiina Elo	Tiina.Elo@lapinliitto.fi
The Museum of Tornio Valley	Riikka Pyykkö	riikka.pyykkö@tornio.fi
Tranboundary river comission	Virve Sallisalmi	virve.sallisalmi@fsgk.se
Lapin ammattikorkeakoulu	Marika Saranne	marika.saranne@lapinamk.fi
MTK	Anne-Mari Söderström	sammalhovi@sammalhovi.fi
Farmer	Petri Leinonen	petri.leinonen@elomestari.fi

- A doodle Poll will be organized to schedule the second workshop in August. All the participants are encouraged to share the Doodle Poll and the invitation to join the local network amongst other individuals, organizations or institutions

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The local network in the Tornio river valley but more stakeholders from the Swedish side, from societal organizations and from other economic sectors would be needed in order to make a more representative and operative network to plan future actions for Climate Change Adaptation and Mitigation/ **ACTION: Aalto University, the Landscape Observatory of Finland and the local stakeholders will invite more local stakeholders in order to have more participants in the second workshop (August 2019)**
- The involvement of the municipalities of Tornio and Haparanda is crucial to plan future actions and to create a local platform for Climate Change Adaptation / **ACTION: give more responsibility to the Municipalities of Tornio and Haparanda in the project**
- The results of the workshop reveal a strong connection between the local community and their inhabited landscape, which is clearly associated with the river Tornio and the natural and open character of the landscape, which also defines some of the main characteristics of the local identity (e.g. freedom, enjoyment of seasonal changes, etc.) Interestingly, the participants express that their dearest values of the Tornio river valley are connected with the cultural dimension of the landscape, with the interaction between culture and nature, with the significance of settlements and buildings in the rural and fluvial environment, with the trans-frontier condition of their landscape and with the local feeling of community.

Many of the participants were well informed of the general impacts of Climate Change in the region, of its causes and of the need of defining solutions affecting ways of living and local economies. In addition, the participants highlighted the effects of Climate Change in ecosystems, health and safety. Some participants were doubtful or skeptical about Climate Change.

The main impacts and opportunities of Climate Change in the daily life of the participants were primarily connected to the Local Economy (agriculture, forestry, fishing, etc.), local Ways of Living, Health & safety, local Ecosystems, need of technical changes in Buildings & infrastructures, and the water system. Some participants also expressed their doubts about Climate Change and their concern about overreactions. Finally regarding the contribution of the AELCLIC project to existing regional, local or details plans, the participants perceived the AELCLIC project as an opportunity to Learn & Share, both within the regional community and with other European regions. In addition the AELCLIC project was perceived as an opportunity for awareness raising, for the activation of the local community and for the co-definition of solutions & actions / **ACTIONS: Consider that the frontier is just an administrative line and that Tornio and Haparanda work basically as a united functional area. Reinforce the exchange of ideas between the Pilot Landscapes of the AELCLIC-pathfinder project. Invite experts to the workshops 2 and 3 in order to enrich the discussions and provide locals with more detailed information. Increase the component of the project connected to the co-definition of strategies and solutions (workshop3).**

- **WORKSHOP2:** Will be scheduled in the end of August / **ACTIONS: Aalto University will open a Doodle Poll to set the best possible date and time. The following topics are proposed for the discussion in the workshop2: The River, The Sea, The Border, Ecological Migrations, Agriculture and Forestry, Carbon Neutrality**
- **RESULTS** of the WORKSHOP1 and visibility of the Local Network in the webpage of the project / **ACTION: The results will be processed by Aalto University and displayed in the Webpage of the AELCLIC-pathfinder project (www.aelcllicpathfinder.com)**

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 2 (Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Tornio river valley). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o Insufficient time to identify or engage some stakeholders (especially representatives from the economic sector (tourism, services, etc.) and social groups (youngsters, senior citizens, commuters, etc.). A short visit and some bilateral meetings with the Municipalities of Tornio and Haparanda and with some stakeholders would have helped to have more participants.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Deep involvement and commitment of the participants
 - o Feasible tasks for the allocated time
 - o Clear guidelines and effective methods
 - o Support from Sampo Kangastalo and Göran Wigren (cities of Tornio and Haparanda)
 - o Definition of multi-stakeholders groups for the development of the planned tasks
 - o Good understanding of the different stages and expected outcomes of the AELCLIC-pathfinder project and general consensus about the need of having 3 workshops in order to generate and process the information adequately
- **Learnt lessons and recommendations for similar activities in other places:**
 - o See Shortcomings and Barriers
 - o See Main reasons for the successful achievement of the expected Outcomes.
- **Learnt lessons and recommendations for future activities in the same place:**
 - o Increase the dissemination of the project and planned activities (use the AELCLIC webpage and the webpages of the collaborative institutions)
 - o Contact in a bilateral way some crucial stakeholders (e.g. economic actors and social groups)
 - o Prepare and print some informative materials (flyers)
- **Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity:**
 - o The deep connection with the river and with the natural values of the area, creates a deep connection between local inhabitants and their landscape. People living in the rural parts of the valley seem to be highly aware of the many environmental and social processes that might be affected by Climate Change and many of them are land owners playing a central role in the management and transformation of the landscape. All these factors, make farmers more cautious when proposing changes or making decisions which could affect their capacity to manage their land and sustain their livelihoods. These remarks could be probably applied to other rural areas. On the other hand, participants living in the towns of Tornio and Haparanda keep a strong connection with their natural and agricultural environments but they introduce new urban agendas to the discussion (e.g: new sustainable urban area in the border (a prototype of a climate change adapted urban district?).

ECONOMIC REPORT:

TYPE OF COST (approximate)	COST (€)
- Travel & Accommodation Costs for the partner(s) members	450
- Goods, materials and external services: Coffee breaks	20
- Sub-granting (e.g. Travel & Accommodation costs for Third Parties or collaborators)	0
TOTAL	470



WP3

Atlantic & Alpine Europe

ACTIVITY: Workshop1_Holland Lowland Peat Landscape_PILOT LANDSCAPE

DATE and TIME: Spring 2019 (no physical workshop could be realised; several smaller meetings build up to the below results)

PLACE: Head Office of the Province of Zuid-Holland, The Hague (NL), and other places

ORGANIZERS:

- Bas Pedroli / Wageningen University *¹
- Isolde Somsen / Province of Zuid-Holland *

PARTICIPANTS:

- Isolde Somsen / Province of Zuid-Holland *
- Caroline Ammerlaan / Province of Zuid-Holland *
- Werncke Husslage / Province of Zuid-Holland *
- Gerrit-Jan van Herwaarden / Landschappen.nl *
- Paul Roncken / Province of Utrecht
- Sven Stremke / Wageningen University

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project.
- Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Holland Lowland Peat Landscape

SYNTHETIC OVERVIEW OF THE THEME AS PERCEIVED IN ZUID-HOLLAND – APPROACH OF THE PILOT



There are many current developments of local networks around climate adaptation, because the theme is topical to the entire Province (and beyond). The National Delta Programme on Spatial Adaptation (2018) stimulates strongly all municipalities to engage in Climate Stress Tests, with the associated action plans.

1. INTRODUCTION TO THE NATIONAL DELTA PROGRAMME ON SPATIAL ADAPTATION, FOCUSING ON PROVINCE OF ZUID-HOLLAND

The Delta Programme has fostered closer collaboration among governments, NGOs, and the business community. Knowledge is exchanged about issues such as water, spatial planning, and climate change, as are combined solutions to spatial planning and the regional economy.

In November 2016, the district water boards and the Rhine Estuary-Drechtsteden Delta Programme organised a meeting on connecting spatial planning and water, within the context of the annual consultations on the Flood Protection

Programme. This meeting has generated an overview of potential linkage opportunities in the scheduled dyke improvements. The Water-Spatial Planning Evaluation shows that the collaboratives in the region are successful in connecting water and spatial planning. The evaluation has also generated several points of attention in this respect.

* Names of persons and logos of their affiliations may be used on the AELCLIC website

The Alblasserwaard-Vijfheerenlanden MIRT Study shows how flood risk management can be connected to the cultural-historical identity, spatial quality, and economic strength of the area. To address the taskings along the Hollandsche IJssel, the region has conducted a comprehensive exploration by examining the role of the Hollandsche IJssel storm surge barrier, dykes, and forelands in interconnection. Attention has also been paid to linkage opportunities, such as improving access to the Krimpenerwaard. The parties are reviewing the developments and results through regular administrative coordination meetings. The regional perspective for the northern rim of Voorne-Putten (Geuzenlinie) has identified various linkage opportunities in dyke improvements. In 2017, this perspective will be elaborated into an area-based programme. In this process, the parties will also pay attention to opportunities for linking regional taskings to the flood risk management tasking. The district water board is closely involved in the efforts.

This strongly structured policy process has also caused that the added value of the AELCLIC Pathfinder is not yet clear enough to get the initiators be invited to a joint workshop, so as to activate a broader partnership.

2. MULTI-STAKEHOLDER APPROACH

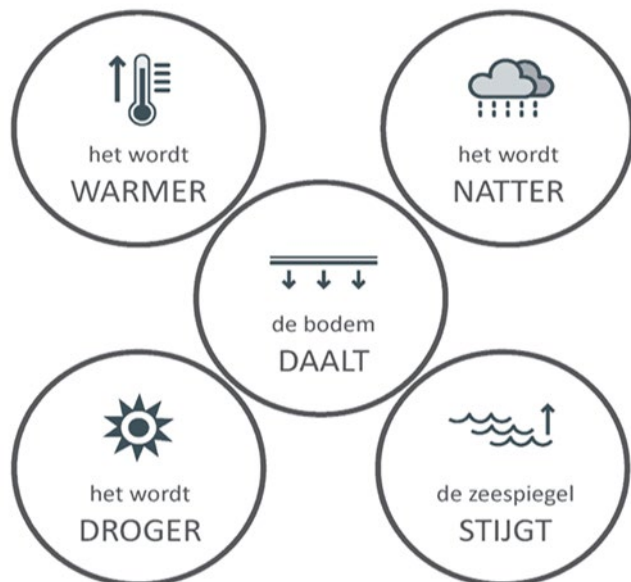
7 regional multi-level boards on climate adaptation:



Joint Mapping of Vulnerabilities



3. CONCLUSION



- It is getting warmer
- It is getting wetter
- It is getting drier
- The soils are subsiding
- Sea level is rising

4. NEXT STEPS: Future Workshops and Visibility of the Local Network

It is agreed that Province Zuid-Holland and Wageningen University jointly consider possibilities to team up with the groups preparing Climate Stress Tests in various areas in the Province of Zuid-Holland.

ACTIVITY: Workshop 1

PLACE: Croagh Patrick Visitor Centre

ORGANIZERS:

Liam Carr & Kevin Lynch / National University of Ireland Galway (NUI Galway)

David Mellett / Climate Action Regional Office (CARO)

PARTICIPANTS:

Murrisk Development Association / Non-affiliated local residents / NUI Galway / CARO / National Parks and Wildlife Service

KEY OBJECTIVES OF THE ACTIVITY:

The purpose of this scoping workshop was: 1) to bring Bertra community members together with other stakeholders; 2) to discuss visions for Bertra Beach and, more broadly, Clew Bay; 3) to identify various possible opportunities as well as challenges.

STRUCTURE:

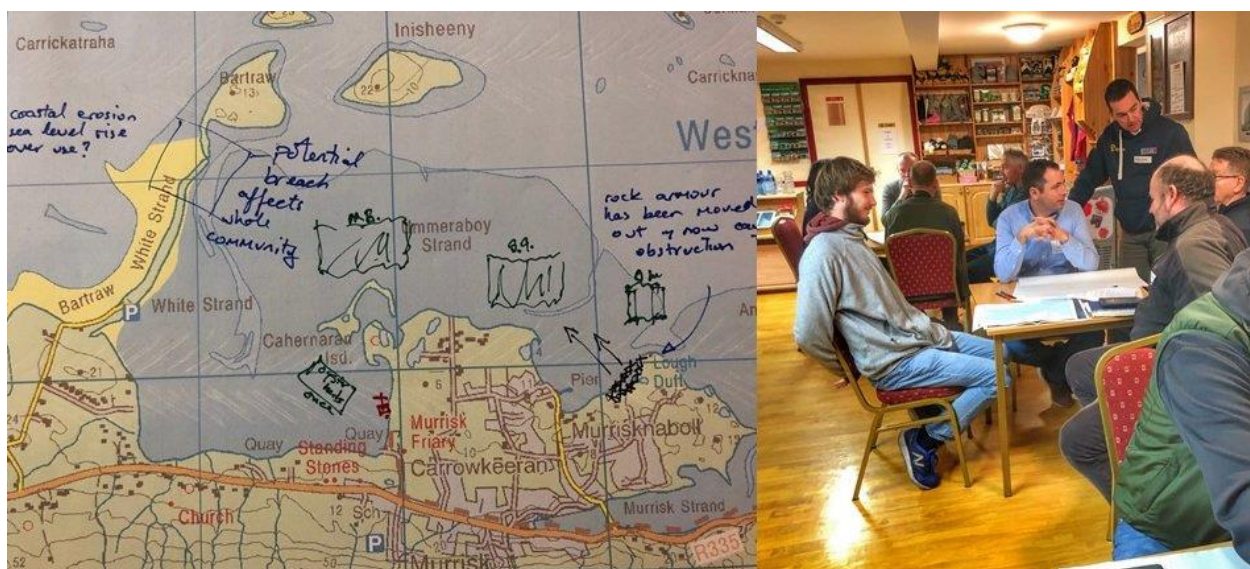
The workshop consisted of a series of facilitated “meeting tables” where participants were encouraged to share their thoughts on a number of linked themes. Representatives from NUI Galway facilitated each table, allowing participants (a mix of stakeholder groups at each table) to engage on the subject matter as they saw fit. The themes discussed were:

Clew Bay Area

- What do you like about the area? / Why do you like living or working in the area? / What makes the area special?

Long-Term Vision for Clew Bay and Bertra

- What will the Clew Bay area will look like 10-years' time? What *should* it look like?
- How might it be used? How might it be managed?
- How might your vision for Clew Bay area affect Bertra's future?

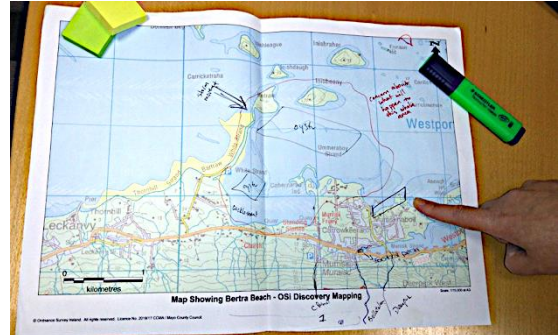


Challenges to the hopes and expectations for the future

- How might threats from the natural environment affect Bertra / Clew Bay?
- In what way might economic issues be important to Bertra / Clew Bay?
- What social & cultural issues may be relevant to the area's future?
- Are there any other issues that might affect Bertra / Clew Bay future?

Human and other resource needs for ensuring Bertra's and Clew Bay's communities and environment are healthy and prosperous in the future

- What resources are necessary for achieving your vision(s)?
- What opportunities are there to fund your ideas?
- How should your vision(s) be funded?
- What are the necessary partnerships for achieving your vision?
 - Which stakeholders are currently active and helpful?
 - Which stakeholders are currently not active, but should be?
 - (or active but maybe not as effective as they could be)



SUMMARY:

The discussion of each topic is summarised below using a *wordle*. The larger words are those that were used most frequently in the conversations across the four tables. The workshop and the points it raised should be considered another layer in the information/knowledge contributing to the process, rather than being statistically representative of the views of all the local communities and stakeholders.

Landscape value:



ACTIVITY: Workshop 2

DATE and TIME: May 2019

PLACE: Clew Bay Hotel Westport

ORGANIZERS:

Liam Carr & Kevin Lynch / National University of Ireland Galway (NUI Galway)

Laura Dixon & David Mellett / Climate Action Regional Office (CARO)

PARTICIPANTS:

Murrisk Development Association / Non-affiliated local residents / NUI Galway / CARO / National Parks and Wildlife Service

KEY OBJECTIVES AND STRUCTURE:

This workshop had a broad scope, looking at the marine side of the pilot landscape site. It consisted two talks: one on aspects of Marine Spatial Planning (MSP) for the area and one on how the Regional Climate Action Office (CARO) was implementing the national Adaptation Framework. These were followed by an informal discussion of the issues in the area in light of climate change. It was primarily run by the students and staff of NUI Galway's MSc in Coastal & Marine Environments. It extended the stakeholders engaged in the project's work, including a local sailing club, outdoor activity centre and aquaculture operations.

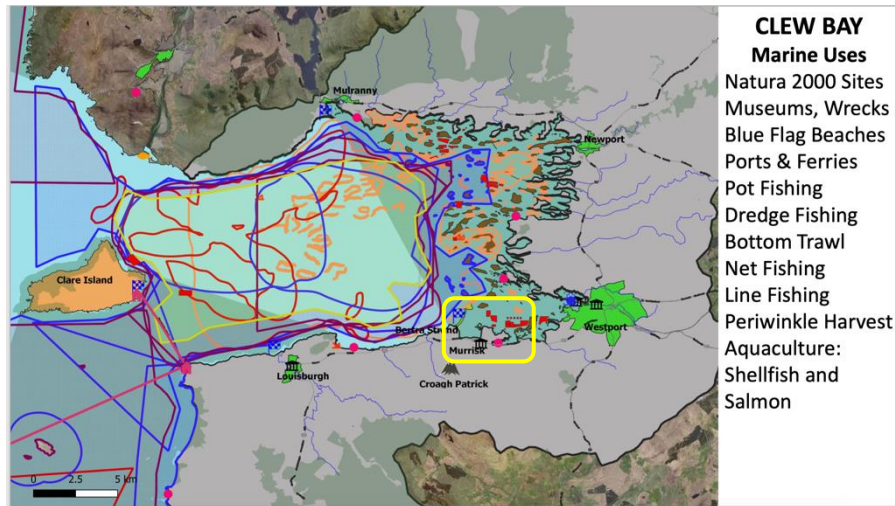
The stated objectives were to learn from stakeholders what they think regarding Clew Bay and its positive attributes? Where they see potential for economic growth? Where they would like to see further environmental conservation efforts? How you would like to see Clew Bay managed in the future, giving regard to climate change effects?

SAMPLES SLIDES FORM THE TALK:

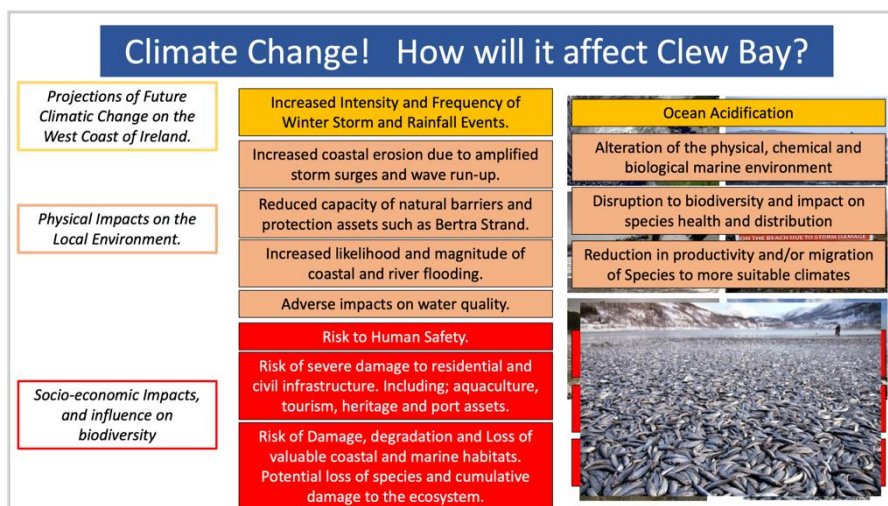
The interaction between climate action, MSP and terrestrial planning:



The complex overlapping activities that take place in the bay, with land-sea interactions an important aspect. The study site for the AELCLIC project is marked with a yellow box.



The projected climate change effects for Clew Bay.



The cover slide for the talk.

Understanding MSP in a Changing Climate

Dearbhla Jordan and Eoin Ó Fátharta
With Dr. Liam Carr

MSc Coastal & Marine Environments: Physical Processes, Policy & Practice
Class of 2018-2019
Clew Bay, Co. Mayo, Ireland

MSc Coastal & Marine Environments
NUI Galway

SUMMARY: The focus group consisted of 13 participants, with discussion focussed around how the implementation of a MSP for Clew Bay may compliment or duplicate any climate change adaptation actions. Participants were particularly interested in how the perspective of the academics differed, or aligned, with the views of the CARO staff present. In particular the main themes that arose from the event were around how to move forward:

- 1) Short-term action: What possible actions could be taken in the near future while more long-term plans were being developed?
- 2) Available support: In trying to develop community-led actions to what degree could academic institutions (NUI Galway in particular) and local government (the CARO in particular) be expected to support the work?
- 3) Communication: In developing any actions what *lines of communication* were best suited to facilitate a partnership approach between communities and local government.

The output from Workshops 1 & 2 (looking at two separate geographical scales) informed the design of Workshop 3 as an event that looked to solidifying the *trust* that had been built up between all the stakeholders over the period of the project's work. It was also intended to address the immediate needs of identifying 1) viable short-term actions, 2) a dedicated group of stakeholders to continue the project's work past its end in December 2019.

ACTIVITY: Workshop1/2_Haute Tarentaise_PILOT LANDSCAPE

DATE and TIME: Reconnaissance visit 2 – 3 September 2019 (Talks with many stakeholders in the Valley) / Workshop 9 October 2019

PLACE: Bourg St Maurice, Haute Tarentaise. Premises of the workshops of the Dairy Cooperative (Coopérative Laitière de Haute Tarentaise) in Bourg St. Maurice.

ORGANIZERS:

- Bas Pedroli / Wageningen University
- Agnès Patuano / Wageningen University
- Léonie Viallet, Chargé du Service Qualité, Coopérative Laitière de Haute Tarentaise

PARTICIPANTS 9 October 2019 | 16 :00 - 18 :30:

- Magali Borrel / Communauté de Communes de Haute Tarentaise
- James Merel / Bureau des Guides Bourg Saint Maurice, les Arcs
- Léonie Viallet / Coopérative Laitière de Haute Tarentaise

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Generation and Activation of a local network interested in working in Climate Change Adaptation through the AELCLIC-pathfinder project.
- Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Haute Tarentaise Multiplier Landscape

1. INTRODUCTION

We had three very committed participants in the workshop; unfortunately some other people had had to cancel their participation but they promised to come the next workshop, for which we now have a good basis and more people to attend. Anyway, the issues at stake are getting very clear and we are pretty sure a local consortium could support a strong landscape pilot for an eventual Deep Demonstrator!

2. ISSUES PERCEIVED

1. Snow conditions:

The melting of glaciers leads to more random snow conditions. Sometimes the differences in temperature make the snow safer because it is better packed. But between 1000 and 2000m the snow does not hold anymore.

Effect on the landscape:

Terrain: Melting glaciers make slopes more fragile and more susceptible to erosion.

Affected Populations:

Ski resorts are using more and more artificial snow, even undercoat, to be able to ski all season. As soon as the temperatures are sufficiently low (November), the under layer is packed and prepared. This adaptation is as much linked to the temperature change as to the economic context of competition with the resorts in Austria and Italy which also use artificial snow. Haute Tarentaise is considered a privileged landscape because there is still natural snow. Moreover, some winter sports professionals leave regions such as the Pyrenees or the Massif Central to come and continue to work. However, the valley is also more isolated from larger cities and therefore has a more fixed season schedule, compared to other places that can keep stations open longer (or on a more adaptable schedule depending on the snow) knowing that they will still have visitors.

Mountain guides need to adapt to find alternative routes. The falling rocks and landslides make some glaciers too dangerous.

Tourists continue to visit the area but they now come for other reasons and activities than winter sports. They enjoy hot and long summers. Christmas visitors often come with their families and fall back on other

activities if there is no snow, but the tourists who come for New Year, more numerous and more individualistic, are sometimes less accommodating.

The inhabitants recognize the difference between the activities they could do in their childhood (luge) and those practiced by their own children who benefit less from the snow.

2. Drought

The heat lasts longer and longer and heat waves are now almost annual. Long periods of drought hurt vegetation and waterways. The water restrictions put in place by the French government during the heat waves are also felt.

Effect on the landscape:

Springs and streams: Some springs dry up earlier in the year. The temperature of the water has also increased.

Vegetation: The grass dries faster and loses in quality. Affected Populations:

Farmers use stream water to cool the milk but it is sometimes too warm or too low. Producers in the valley who do not have irrigation are in trouble, in addition to water restrictions decided by the government to produce good quality fodder.

The inhabitants recognize the difference between the activities they could do in their childhood (luge) and those practiced by their own children who benefit less from the snow.

3. Transport:

How to take tourists on a mountain holiday with more and more people on the road?

There is a lot of traffic in Bourg Saint Maurice, because the valley forms a funnel which with a large number of ski resorts popular with tourists. It is difficult to build new roads because of mountains and scree. The problem is very complicated and it is not new. In 1992, the Olympic Winter Games organized in Albertville allowed the renovation of infrastructure but it is no longer sufficient.

There are already many tunnels to pass under the mountain but they are not always usable.

The trains also stop in Bourg Saint Maurice but they do not go further so you have to take the car. There is only one train lane so there are no possible crossings. In winter the Eurostar arrives at Bourg Saint Maurice.

On weekends and in summer roads are often blocked. The winter is less problematic since the visitors, once arrived, remain in their station, but the transport infrastructure still suffer from the influx. Accommodation companies offer staggered bookings to relieve traffic on weekends. Out of season, it is the construction companies that clog roads.

Without being a consequence of climate change, these transport and infrastructure problems themselves create more pollution, which encourages global warming. These problems also apply to the dairy cooperative, which has to join several breeding sites by road to collect the milk.

Action Plan: More buses and better transportation options should be offered, especially between the station and the stations. The English are more efficient to get people on the slopes with commuter shuttle systems. Many visitors come from far away but the problem is the French (and Belgians who come by car) who are not necessarily ready to take public transport.

4. Dairy farming

The Beaufort has saved local agriculture, to the point where the region is very dependent on this product and its PDO. If the product is going well, but the challenges, in terms of water quality and mountain pastures, threaten the sustainability of this economy. The importance of livestock for the functioning of the local landscape goes beyond the product itself. The grazed grass holds the snow, which prevents avalanches and what ski resorts appreciate. Some stations rent their land for free during the summer to be used in pastures. At the same time, some breeders work in the resorts during the season to supplement their income. There is therefore a system of exchange between ski resorts and breeders in the region.

For the moment, pastoralists adapt less than they suffer the consequences of climate change. Before, cheese production mobilized the whole landscape (wood for heating, etc.). The small producers used the "montagnettes" (an intermediate stage between valley and alpage) before taking their flocks in communal pastures but it is now more rare.

It becomes impossible to anticipate at the beginning of the season how the season will unfold. Animals are more numerous in summer than in winter because it costs less and they sometimes come from outside. Thanks to cooperatives you can make milk and cheese all year long.

The spirit of the alp and Beaufort is the summer pastures. Summer products are therefore more valued and therefore more sought after and therefore more product but it is based on high quality pastures.

Some owners rent their alp, sometimes more than 600 ha of land including pasture, glacier etc. These owners are mostly local and from the area. In fact, land is passed on as a family rather than by purchase / sale. You cannot build a chalet on it if there are no existing walls so the only value is the alp. They do not necessarily have value for foreigners.

5. Rain and thunderstorms

Participants report an increase in thunderstorms and heavy rains that contrast with periods of drought.

Effect on the landscape:

Terrain: The contrast between drought and heavy rains on very dry ground leads to destabilization of the soil and the creation of ravines.

Infrastructure: Arbonne floods and floods can damage infrastructure. This year, a bridge has been torn off. In Tignes, snow hunts have been requisitioned to rid the city of hail.

6. Change of vegetation

The forests go back higher and encroach on the agricultural parcels, reducing the extent of pastures and cultures. This extension effect of forest cover is also linked to the decreasing number of farmers and small farmers.

In addition, abandoned plots are sometimes covered with an Alder species (*Alnus viridis*), a bushy and colonizing shrub that also threatens the persistence of alpine pastures by reducing pasture area.

3. Towards an Action plan

1. For mountain guides:

Currently no possibility of a coherent and unifying plan, but themselves adapt from year to year to propose new safer hiking routes and to propose other activities to the visitors. Everything is done voluntarily (too much bureaucracy) for the layout of the trails, climbing walls and so on. No existing subsidies.

2. For farmers:

The main issues are water and air. Water should be brought where there is none, perhaps by changing irrigation techniques (canals).

Subsidies exist for all breeders but they do not all benefit in the same way. An action plan would be useful, but it must consider all farmers fairly. Indeed, alpine pastures are fragmented. Some lands are private, others public and each has its own issues. It currently lacks decision-making power with a global point of view. The dairy cooperative (which groups around fifty breeders of all sizes, from 3 to 150 cows) has a key role in the valorisation and marketing of the final product but it is less involved in the operationalization of farms or collaboration with farmers. other stakeholders involved.

4. General notes

The consequences of global warming are not all felt in the same place or in the same way. Some pastures are better than others (depending, for example, on their irrigation system).

The production of electricity by hydraulic dams does not seem to be affected because several dams exist and offset each other. In general, electricity is mostly taken in winter, when drought is less problematic.

Other effects, more anecdotal, were also mentioned such as the wind.

Regarding *Biodiversity*: The flowering of vegetation appears either earlier or later than expected but all years or all places are not equal. Generally, the effects on biodiversity are not necessarily visible to the naked and untrained eye. A positive point: Griffon vultures introduced into the Verdon and Gorges du Tarn then migrated to the region.

Next Workshop: Tuesday, October 22 from 10am to 11.30am at the Coopérative Laitière Haute Tarentaise (ZA Colombières). Registration at <https://www.eventbrite.com/e/workshop-country-adaptation-to-change-climate-tickets-76033457117>

Summary of major issues

Enjeu	Impacts paysage	Parties concernées	Potentiel d'adaptation	Enjeux liés	Actions envisageables
Fonte des glaciers ; insécurité de neige	<ul style="list-style-type: none"> Rends les pentes plus fragiles Chute des pierres Biodiversité 	<ul style="list-style-type: none"> Stations de ski Guides de montagne Touristes Habitants 	<ul style="list-style-type: none"> Neige de culture Adapter les sentiers et routes d'escalade Développer autres formes de tourisme 	<ul style="list-style-type: none"> Compétition avec autres stations de ski Pâturage pour mieux tenir la neige 	Vision du paysage de la Vallée à 2050 <ul style="list-style-type: none"> Identifier les intérêts des parties prenantes Définir des routes réalistes vers le future souhaité Identifier des financiers potentiels Division des subventions plus équitablement Etc.
Sècheresse	<ul style="list-style-type: none"> Sources et ruisseaux tarissent L'herbe sèche plus vite Biodiversité Abandon des alpages et des montagnettes 	<ul style="list-style-type: none"> Éleveurs Habitants Touristes 	<ul style="list-style-type: none"> Irrigation Déplacer les alpages vers la hauteur Diminuer le nombre de vaches 	<ul style="list-style-type: none"> Tourisme d'été Patrimoine culturel 	
Augmentation de situations extrêmes météo	<ul style="list-style-type: none"> Erosion Inondation Déstabilisation des sols Chute d'arbres 	<ul style="list-style-type: none"> Habitants Éleveurs Touristes 	<ul style="list-style-type: none"> Bassins de rétention Mesures d'ingénierie 	<ul style="list-style-type: none"> Aménagement des services techniques 	
(non-climat) Manque de capacité de transport, particulièrement les weekends en hiver	<ul style="list-style-type: none"> Pollution Perte de temps Durabilité 	<ul style="list-style-type: none"> Habitants Touristes Entrepreneurs Stations de ski 	<ul style="list-style-type: none"> Favoriser le transport public Améliorer les routes Adapter l'arrivée et départ des touristes 	<ul style="list-style-type: none"> Gouvernance Manque d'investissements 	



WP4

South Western Europe

ACTIVITY: Workshop1_HUERTA DE VALENCIA-ALBORAYA_PILOT LANDSCAPE

DATE and TIME: 17.6.2019, 16:00-19:30

PLACE: Valencia (Spain), Las Naves headquarters

ORGANIZERS:

- Lidia García / Las Naves
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Celsa Monrós / Climate-KIC Spain
- Joan Damià / Climate-KIC Spain
- Pilar Martínez / Climate-KIC Spain – AIJU
- María Vallés / Universitat Politècnica de València
- Antonio Lidón / Universitat Politècnica de València
- Raquel Aguilar / Official Association of Agricultural Engineers of Eastern Spain
- Miquel Jordà / Regional Department of Agriculture, Rural Development, Climate Emergency and Ecological Transition
- Miquel Minguet / Horta Viva
- Alba Herrero / Assut Foundation
- Pepe Castro / La Unió de Llauradors i Ramaders (Union of Farmers and Livestock Breeders)
- Andreu Escrivà / València Clima i Energia (Municipal Climate Change Foundation)
- Ángeles Calatayud / Valencian Institute of Agricultural Research (IVIA)
- José Miguel de Paz / Valencian Institute of Agricultural Research (IVIA)

REMOTE PARTICIPANTS (by online form):

- 1 anonymous participant (until 5 July 2019)

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC.
- Creation of the local network for the Pilot Landscape Huerta de Valencia-Alboraya.
- Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing.
- Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop.

AGENDA:

1. Welcome and presentation.
 2. Introduction to EIT-CLIMATE-KIC Spain (Valencia)
 3. Introduction to the AELCLIC project.
 4. Potential local climate scenarios.
Coffee break
 5. Workshop presentation and organization. Presentation of participants.
 6. TEAMWORK
 - a. TASK 1: Identification of the Huerta de Valencia-Alboraya core values.
 - b. TASK 2: Identification of climate change effects on the Huerta de Valencia-Alboraya landscape.
 - c. TASK 3: Brainstorming about possible solutions to the identified effects and barriers.
 7. Agenda and workplan proposal for the following Workshop 2.
-

1. WELCOME

- Welcoming words by Francisco Galiana (UPV).

2. INTRODUCTION TO EIT-CLIMATE-KIC SPAIN

- Celsa Monrós (EIT Climate-KIC Spain) summarizes the origin, goals and operating methods of EIT Climate-KIC Spain

3. INTRODUCTION TO THE AELCLIC PROJECT

- Francisco Galiana (UPV) summarizes the goals, expected outcomes and structure of the project, as well as the location and reasons for the selection of the Huerta Pilot Landscape. The AELCLIC web page is presented.

CONCLUSIONS:

- The AELCLIC project is presented as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of a series of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future Demonstrator project

4. POTENTIAL LOCAL CLIMATE SCENARIOS

- Emilio Servera (UPV) briefly reviews some existing datasets which already show some observed climate change effects at a regional, national and global level. Global and regional climate change scenarios are then introduced, and the most important expected changes over temperature, rainfall, river flows and sea level rise in the Huerta de Valencia-Alboraya pilot landscape are presented.

CONCLUSIONS:

- Climate change should be considered when deciding which should be the future of the Huerta de Valencia-Alboraya landscape
- The Huerta will be warmer, water availability will be lower and sea level rise is a very important threat which in principle will unfold more slowly
- At this work scale, the potential influence regarding the magnitude of the climate change that will happen in the Huerta is very small, but there is a very strong influence regarding the way we can react to such change.

5. WORKSHOP PRESENTATION AND ORGANIZATION.

- Lidia García (Las Naves) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes will be later placed on several flipcharts, divided in several pre-defined areas.

6. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Miquel Jordà	LOCAL/REGIONAL AUTHORITY	Conselleria de Agricultura, Desarrollo Rural, Emergencia Climática y Transición Ecológica (Regional Department of Agriculture, Rural Development, Climate Emergency and Ecological Transition)
Andreu Escrivà	PUBLIC SECTOR	València Clima i Energía (Municipal Climate Change Foundation)
Celsa Monrós	PUBLIC SECTOR	Climate-KIC Spain
Joan Damià	PUBLIC SECTOR	Climate-KIC Spain
Pilar Martínez	PUBLIC SECTOR	Climate-KIC Spain – AIJU
Ángeles Calatayud	RESEARCH	Valencian Institute of Agricultural Research (IVIA)
José Miguel de Paz	RESEARCH	Valencian Institute of Agricultural Research (IVIA)
María Vallés	RESEARCH	Universitat Politècnica de València
Antonio Lidón	RESEARCH	Universitat Politècnica de València
Miquel Minguet	PRIVATE SECTOR	Horta Viva
Raquel Aguilar	SOCIETAL ORGANIZATION	Colegio Oficial de Ingenieros Agrónomos de Levante (Official Association of Agricultural Engineers of Eastern Spain)
Alba Herrero	SOCIETAL ORGANIZATION	Fundació Assut
Pepe Castro	SOCIETAL ORGANIZATION	La Unió de Llauradors i Ramaders (Union of Farmers and Livestock Breeders)
1 remote participant via online form*	UNKNOWN (ANONYMOUS)	

*Remote participation was allowed until 5 July 2019

CONCLUSIONS:

- The constituted local network in Valencia-Alboraya would benefit from an increase in representatives from the local/regional authorities and private sector.
- Some stakeholder groups (i.e. farmers) might be reluctant to take part in workshops.
- Some invited stakeholders couldn't attend because of last minute difficulties and/or prior commitments. Remote participation was encouraged but limited.

6. TEAMWORK

- **Task 1: Which are the values that better represent the Huerta de Valencia-Alboraya?**
 - ENVIRONMENTAL
 - Reduces soil degradation processes (soil fertility and salinity)
 - Carbon sequestration
 - Local market
 - Heat island mitigation
 - Reservoir of biodiversity
 - High agricultural soil suitability
 - Unique crops
 - Biodiversity sink
 - Health (healthy food)
 - Soil conservation (productive capacity)
 - City lungs

- Pollution reduction (zero-mile food)
- Heat island buffering
- Biodiversity
- Buffering from sea level rise impacts (land reserve)
- Crops (despite the loss of cultivars)
- Unique landscape
- Water management (environmental)
- Local knowledge (agroenvironmental). Present and recent past.
- Biggest green belt of a EU city
- SOCIAL
 - Maintenance of lifestyles
 - Environmental education
 - Social pressure
 - Identity
 - Zero-mile food
 - Leisure space (routes)
 - Food sovereignty (zero-mile food)
 - Social relationships
 - Driver of the Valencian economy
 - Linkage to city history and holidays
- CULTURAL
 - Water management (environmental)
 - Local knowledge (agroenvironmental). Present and recent past.
 - Lifestyle
 - Tradition and culture
 - Irrigation system layout. Water use
 - Clear landscape
 - Tradition
 - Valencian people heritage
 - Water infrastructure
 - Cultural landscape
 - Historical memory
 - Natural heritage
 - Ethnological materials
 - Representative of the Huerta
 - Educational (tool)
 - Water infrastructure (own rules)
 - Irrigation systems to be preserved
 - Local production (+ cultural)
 - Cultural origin
 - Traditional wisdom/knowledge systems of many cultures
- ECONOMIC
 - Food sovereignty (zero-mile food)
 - Irrigation systems to be preserved
 - Local production (+ cultural)
 - Job creation
 - Productive activity
 - Local food
 - Unique landscape (strengthen it)
 - Productive Huerta. Unique products
 - Rural/agrarian tourism
 - Job preservation

- Tourist appeal. Diversification
- Economic diversification
- Landscape in good condition (rarely abandoned)
- Main source of income for city
- Food supply
- OTHER
 - Proximity to Valencia
 - Aesthetic value
 - Biodynamic agriculture
 - Food forests
 - Permaculture
 - Ethnobotany
 - Holistic management (Allan Savory)
 - Environmentally sound agricultural practices
 - Local cultivars
 - Animal use
 - Recipes



• **Task 2: Which are the Climate Change effects on the Huerta de Valencia- Alboraya?**

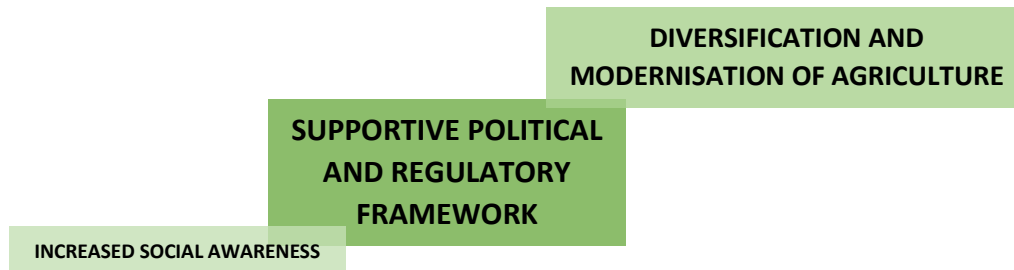
- TEMPERATURE
 - Diversification (agricultural, tourism, gastronomy, cultural)
 - Changes in crop rotations
 - Higher CO₂ emissions
 - Famine
 - Product. Desert. Dry farming.
 - Crop changes
 - Crop and landscape changes
 - New crops
 - Lower yields.
 - Change in cultivars and products
 - New pests
 - Uncertainty in farm income
 - Lack of insurance cover
 - Shorter growing season
 - Pests increase
 - Lower land productivity
 - Higher yields?
 - Need for consumption/production of ultra-processed food
 - Abandonment of agricultural land and farm activities
 - Labor market imbalances
 - Species displacement/disappearance
 - Concentration of production

- Changes in crop cycles
- Agriculture Infrastructures
- Poorer quality diet
- Need for technology
- Species acclimatization and water needs
- RAINFALL
 - Labor market imbalances
 - Species displacement/disappearance
 - Concentration of production
 - Changes in crop cycles
 - Agriculture Infrastructures
 - Poorer quality diet
 - Need for technology
 - Higher incidence of pests
 - Crop changes
 - Higher flood risk
 - Loss of crops seasonality
 - Crop displacement
 - Water shortage
 - Replacement of traditional irrigation systems by drip irrigation
 - Changes in irrigation
 - Damage due to intense rainfall over short periods of time
 - Crop protection techniques
 - Higher water requirements
 - Reduction in water resources
 - Increase in salts in the soil
 - Flood. Crop loss
 - City and Huerta redesign
 - Abandoned land erosion due to heavy rainfall
- SEA LEVEL RISE
 - Flood. Crop loss
 - City and Huerta redesign
 - Loss of productive soil
 - Increase in water and soil salinity
 - Increase in salinity
 - New production models
 - Road infrastructures
 - Sea intrusion (middle term)
 - Loss of spaces
 - Total change of the ecosystem
 - Soil degradation
 - Loss of land
- OTHER
 - Increase in social conflicts due to water and resources
 - Increase in social vulnerability
 - Landscape change
 - New infrastructures: levees, desalination plants
 - Loss of safety of agricultural work due to extreme events, provoking crop unreliability and agricultural abandonment

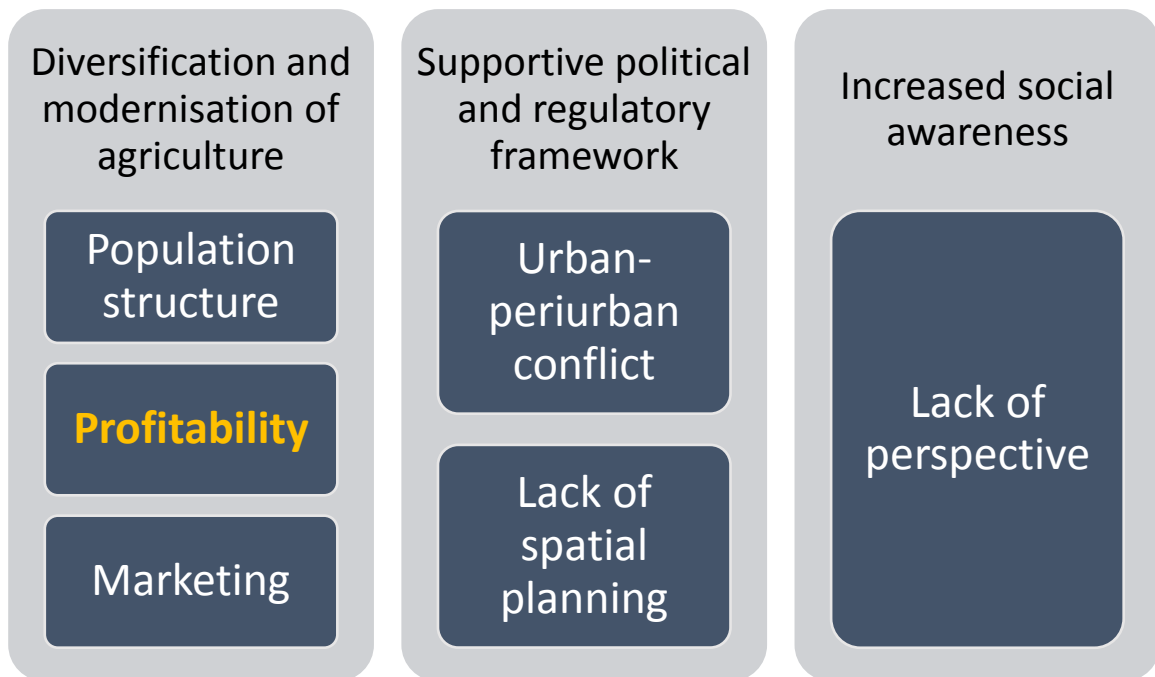


- **Task 3a: Which are the potential answers to the identified Climate Change effects?**
 - **TEMPERATURE**
 - Adapted varieties
 - New varieties
 - Valuation as carbon sink
 - Stop integrated development plan
 - New crops (cultural loss)
 - Association of farmers
 - Research in new, more adapted varieties
 - Increase in technology and research
 - Training and education
 - Crop diversification (higher biodiversity)
 - Boost for producers: quality seal
 - Diversifying crops
 - **RAINFALL**
 - Research in new, more adapted varieties
 - Increase in technology and research
 - Training and education
 - Crop diversification (higher biodiversity)
 - Boost for producers: quality seal
 - Diversifying crops
 - Changes in crop cycles
 - More efficient technologies: water, energy
 - Water heritage protection regulations
 - Awareness
 - Desalination
 - Aquifer management
 - Farmer income
 - Bonus
 - **SEA LEVEL RISE**
 - Farmer income
 - Bonus
 - Preservation of traditional irrigation systems
 - Protective infrastructure
 - **HUERTA 0**
 - To declare a real climate emergency
 - Zero-mile canteens
 - Local products in tourism/catering
 - Ecological footprint bonus
 - Land and agriculture policies
 - Training and education (nutritional value; climate change and social impacts)
 - Stop urban growth
 - Huerta Law (promotes crop continuity)
 - No more new infrastructures (High speed train / V21 highway expansion)

- Changes in policies (Subsidies for Huerta, taxes for transport and not meeting requirements)
- Agricultural abandonment (no Huerta)
- Partisan, short-term interests
- Preservation as undeveloped land (green spaces)
- Social movement in support of heritage protection
- Valuation of its environmental value



- **Task 3b: Which are the threats or weaknesses which could prevent the implementation of those opportunities for resolution?**
 - **TEMPERATURE**
 - Conventional markets
 - Age of farmers
 - Land abandonment
 - Small farm size
 - Urban planning
 - Unprofitable
 - Current profitability versus other sectors
 - **RAINFALL**
 - Current profitability versus other sectors
 - Awareness
 - Lack of awareness of the problem (increase of salinity, decrease of organic matter)
 - High cost
 - **SEA LEVEL RISE**
 - Suitable technology
 - **HUERTA 0**
 - Abandonment
 - Land abandonment
 - Lobbies. Lack of political awareness
 - Short term and low ambition policies
 - Pressure from adjacent infrastructures
 - Lack of planning
 - Direct and strong action by public authorities
 - Profitability = sustainability
 - Economic interests
 - Lack of political will
 - Pressure from urban development
 - Pressure from residents who are not supported despite protecting the public interest



7. WORKPLAN, CLOSURE AND NEXT STEPS

- Francisco Galiana (UPV) thanks the participants for their contributions and summarizes the next steps of the Huerta Pilot Landscape workplan.

CONCLUSIONS:

- Workshop 2 will take place in September (baseline date proposal: 16-20 September). It will be focused on co-defining a possible LACAP structure, contents and funding resources. A Doodle poll will be used to schedule the Workshop.
- Workshop 3 will take place in October (baseline date proposal: 21-25 October). It will be organized as an agreement meeting.
- Participants in the workshop can't authorize the inclusion of their organizations in the AELCLIC webpage without requesting permission from organization managers.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The constituted local network in Valencia-Alboraya would benefit from an increase in representatives from the local/regional authorities and private sector. Some stakeholder groups might be reluctant to take part in workshops. / **ACTIONS:** Universitat Politècnica de València / Las Naves will try to involve some new stakeholders, i.e. by offering the opportunity to have private interviews in order to explain the project and workplan.
- Some invited stakeholders couldn't attend because of last minute difficulties and/or prior commitments. / **ACTIONS:** Universitat Politècnica de València will open an online form to enable to remotely contribute to the workshop to those stakeholders who couldn't attend but might be interested in the project. Open a Doodle Poll to set the preferred possible date and time of the 2nd Workshop.
- The stakeholders were able to quickly identify a wide variety of landscape values. The provision of environmental services appeared most repeatedly during that task. In relation to the landscape adaptation to climate change, it is worth noting that the identified Huerta versatility could be a key element on which resilience can be built. As the workshop progressed, stakeholders focused strongly on the need to ensure the economic profitability of the agricultural activities in the Huerta. Other identified values or services offered by the pilot landscape were dismissed. / **ACTIONS:** Universitat Politècnica de València / Las Naves will try to involve some new stakeholders with different interests and perspectives and/or invite experts to the workshops 2 and 3 in order to enrich the discussions.
- Some potential climate change adaptation actions for the Huerta landscape were themselves identified as the main cause of possible climate change impacts, thus raising the issue of maladaptation risk. The disruption of the link between the people and the landscape productive activity is a possible underlying cause of many of the identified impacts. / **ACTIONS:** Universitat Politècnica de València will address the risk of maladaptation to climate change within the second workshop. Sustaining the profitability of the productive activities while maintaining the landscape character should also be considered as a key focus area.
- Many of the detected potential answers to climate change can be integrated within a supportive political and regulatory framework in relation to agriculture, land planning and/or climate change. Other opportunities include the diversification and modernization of agriculture, including elements such as training and education, and an increase in social awareness in relation to the need to mitigate and adapt to climate change, as well as regarding the benefits of zero-mile food. / **ACTIONS:** Universitat Politècnica de València/Las Naves will analyze the local and regional existing plans and the opportunities for coordination and present the results within the second workshop.
- The lack of adequate planning and coordination of adaptation actions as well as delayed decision-making were identified as key barriers to achieve a successful adaptation to climate change along with the need to ensure economic profitability. / **ACTIONS:** Universitat Politècnica de València/Las Naves will analyze the local and regional existing plans and the opportunities for coordination and present the results within the second workshop. Try to involve key decision makers in the local network.
- WORKSHOP2: Will be scheduled in the middle of September / **ACTIONS:** Universitat Politècnica de València will open a Doodle Poll to set the preferred possible date and time.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 2 (Creation of the local network for the Pilot Landscape Huerta de Valencia-Alboraya). LEVEL OF ACHIEVEMENT: 3/4
 - o OUTCOME 3 (Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 4 (Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o Due to recent regional and local elections, appointments of authorities are currently under way. The absence of key interlocutors on the administrative side, for the time being, is representing a major challenge.
 - o Unforeseen circumstances prevented some stakeholders to attend the workshop.
 - o Attendees were not able to confirm the interest of their institutions in being present in the AELCLIC webpage without further approval by their superiors or managers.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Highly participative and knowledgeable stakeholders
 - o Clear definition of the expected outcomes
 - o Good time planning and subsequent adjustment to the schedule
 - o Very useful reference materials from other AELCLIC workshops
 - o Adequate selection of workshop location and preparation of materials
- **Learnt lessons and recommendations for similar activities in other places:**
 - o Some stakeholders stressed the importance of developing participation activities in locations well-connected in terms of transport, and with adequate parking facilities, in order to make attendance easier or even possible in some cases
 - o Even with a coffee break, three and a half hours might be an excessively long duration for this kind of activity. It was decided to try to adjust future activities to a shorter duration.
- **Learnt lessons and recommendations for future activities in the same place:**
 - o See previous section.
- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - o High. As already mentioned, the discussion focused on the need to ensure the economic profitability of agriculture in the Huerta landscape. Therefore, a very substantial part of the activity was developed around the local circumstances surrounding agricultural activities in the Huerta.

ACTIVITY: Workshop1_RIU BESÒS_PILOT LANDSCAPE

DATE and TIME: 2.10.2019, 16:00-19:00

PLACE: Sant Adrià del Besòs (Spain), Consorci del Besòs headquarters

ORGANIZERS:

- Carme Ribas / Consorci del Besòs
- Carmen Gómez / Consorci del Besòs
- Marc Montlleó/ Barcelona Regional
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València
- Juanjo Galán / Aalto University

PARTICIPANTS:

- Assela Coll / Ajuntament Sant Adrià de Besòs
- Gloria Viladrich / Ajuntament Sant Adrià de Besòs
- Francesc Bercet / Ajuntament Santa Coloma de Gramanet
- Tomás Carrión / Ajuntament Santa Coloma de Gramanet
- Jordi Català / Ajuntament Montcada i Reixac
- Rafael Argelich / Ajuntament Badalona
- Aurora Lòpez / Ajuntament Barcelona
- Núria Parpal / Diputació Barcelona
- Francesc Llimona / Parc Natural Collserola
- Carme Ribas / Consorci Besòs
- Begoña Bellette / Consorci Besòs
- Marc Montlleó / Barcelona Regional
- Gustavo Rodríguez / Barcelona Regional
- Gemma Conde / Barcelona Regional
- Manuel Isnard / Consorci Besòs-Tordera
- Nuria Garcia / Institut Municipal del Paisatge Urbà i la Qualitat de Vida (IMPUQV)
- Xavier Sancho / Barcelona Cicle de l'Àigua (BCASA)
- Cristina Vert / ISGlobal
- Joan de Pablo / Universitat Politècnica de Catalunya
- Juan R. Obon / Endesa
- Marta Hernández / Endesa
- Xavier Larruy / Freelance Biologist
- Roger Hoyos / Plataforma 3 Xemenies
- Pedro Sánchez / Plataforma 3 Xemenies
- Robert Vidal / Bosc de Llum
- Manel Gomez / Montcada SOM-RIUS

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC.
 - Creation of the local network for the Riu Besòs Pilot Landscape.
 - Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing.
 - Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop.
-

AGENDA:

1. Welcome and presentation.
2. Introduction to the AELCLIC project.
3. The final stretch of the river Besòs: historical background and future plans
4. Potential climate change impacts in Europe and the Mediterranean
5. Climate change impacts in the Besòs area.
Coffee break
6. Workshop presentation and organization. Presentation of participants.
7. TEAMWORK
 - a. TASK 1: Identification of the Besòs river landscape core values.
 - b. TASK 2: Identification of climate change effects on the Besòs river landscape.
 - c. TASK 3: Brainstorming about possible solutions to the identified effects and barriers.
8. Agenda and workplan proposal for the following Workshop 2.

1. WELCOME

- Welcoming words by Carme Ribas (Consorti del Besòs).

2. INTRODUCTION TO THE AELCLIC PROJECT

- Juanjo Galán (Aalto University) summarizes via Skype the goals, expected outcomes and structure of the project, as well as the location and reasons for the selection of the Riu Besòs Pilot Landscape. The AELCLIC web page is presented.

CONCLUSIONS:

- The AELCLIC project is presented as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of a series of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future project

3. THE FINAL STRETCH OF THE RIVER BESÒS: HISTORICAL BACKGROUND AND FUTURE PLANS

- Joaquim Calafí and Begoña Bellette (Consorti del Besòs) outline the historical background and future plans for the final stretch of the river Besòs, with a special focus on the River Park and the future development of the coastal area.

CONCLUSIONS:

- The condition of the final stretch of the Besòs river has improved significantly since 1997, due to a joint effort by several concerned administrations
- The Besòs river park has become a key element in the green infrastructure of very densely consolidated urban area, with a heavy public use
- The management plan for the river park is under revision. The development plan for the area surrounding the “3 Xemeneies” (a key industrial heritage landmark in the coastal area) is also currently in progress.

4. POTENTIAL CLIMATE CHANGE IMPACTS IN EUROPE AND THE MEDITERRANEAN

- Emilio Servera (UPV) reviews some existing datasets which already show some observed climate change effects across Europe. Projected future changes are then introduced, with a special focus on the Mediterranean area.

CONCLUSIONS:

- Significant change trends in annual temperature and annual and summer precipitation are already being registered across Europe
- Projected changes are highly dependent on the evolution of greenhouse gas emissions in the future, and could reach up to a 5,5°C increase in temperature. The

rate and direction of changes in precipitation are highly related to latitude, and could range from a 30% increase in the north of Europe and a 40% decrease in the southern part of the continent.

- The Mediterranean area is considered one of the global hotspots for climate change impacts due to the combination of projected temperature increases and precipitation decrease, among other factors.

5. CLIMATE CHANGE IMPACTS IN THE BESÒS AREA.

- Marc Montlleó (Barcelona Regional) describes the Besòs area, future climate projections and their expected effects in the Besòs area. He also explains the ongoing work in relation to climate change in the area, and the detailed expected effects in two selected areas

CONCLUSIONS:

- The magnitude of climate change in the Besòs area will depend on the mitigation measures taken.
- Highly detailed climate projections have already been developed and show, for instance, that the temperature increase at the end of the century might make the Besòs area climate comparable to that of the South of Spain or North of Africa today.
- Main expected climate change effects in the area include higher temperatures, increase in floods, and lower availability of water resources, all of which have direct and indirect impacts on human health
- The “3 Xemeneies” area will experience higher temperatures, sea level rise, higher risk of river flooding and lower water resources availability.

5. WORKSHOP PRESENTATION AND ORGANIZATION.

- Francisco Galiana (UPV) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes will be later placed on several flipcharts, divided in several pre-defined areas.
- Repetition of sticky notes with the same or similar texts by different stakeholders was allowed since it would be used as an indicator of the relevance of the topic.
- Every activity will be developed at two different work scales simultaneously: a broader, more general scale (final stretch of the river Besòs and surroundings) and a more detailed, site scale (focused on the “3 Xemeneies” area)

6. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Assela Coll	LOCAL/REGIONAL AUTHORITY	Ajuntament Sant Adrià de Besòs
Gloria Viladrich	LOCAL/REGIONAL AUTHORITY	Ajuntament Sant Adrià de Besòs
Francesc Bercet	LOCAL/REGIONAL AUTHORITY	Ajuntament Santa Coloma de Gramanet
Tomás Carrión	LOCAL/REGIONAL AUTHORITY	Ajuntament Santa Coloma de Gramanet
Jordi Català	LOCAL/REGIONAL AUTHORITY	Ajuntament Montcada i Reixac
Rafael Argelich	LOCAL/REGIONAL AUTHORITY	Ajuntament Badalona
Aurora Lòpez	LOCAL/REGIONAL AUTHORITY	Ajuntament Barcelona
Núria Parpal	LOCAL/REGIONAL AUTHORITY	Diputació Barcelona
Francesc Llimona	LOCAL/REGIONAL AUTHORITY	Parc Natural Collserola
Carme Ribas	PUBLIC SECTOR	Consorti Besòs
Begoña Bellette	PUBLIC SECTOR	Consorti Besòs
Marc Montlleó	PUBLIC SECTOR	Barcelona Regional
Gustavo Rodríguez	PUBLIC SECTOR	Barcelona Regional
Gemma Conde	PUBLIC SECTOR	Barcelona Regional
Manuel Isnard	PUBLIC SECTOR	Consorti Besòs-Tordera
Nuria Garcia	PUBLIC SECTOR	Institut Municipal del Paisatge Urbà i la Qualitat de Vida (IMPUQV)
Xavier Sancho	PUBLIC SECTOR	Barcelona Cicle de l'Àigua (BCASA)
Cristina Vert	RESEARCH	ISGlobal
Joan de Pablo	RESEARCH	Universitat Politècnica de Catalunya
Juan R. Obon	PRIVATE SECTOR	Endesa
Marta Hernández	PRIVATE SECTOR	Endesa
Xavier Larruy	PRIVATE SECTOR	Freelance Biologist
Roger Hoyos	SOCIETAL ORGANIZATION	Plataforma 3 Xemenies
Pedro Sánchez	SOCIETAL ORGANIZATION	Plataforma 3 Xemenies
Robert Vidal	SOCIETAL ORGANIZATION	Bosc de Llum
Manel Gomez	SOCIETAL ORGANIZATION	Montcada SOM-RIUS

CONCLUSIONS:

- The local network was established by the Consorci del Besòs (which is a consortium of the municipalities of Barcelona, Sant Adrià de Besòs, Santa Coloma de Gramanet, Montcada i Reixac and Badalona), based on their deep knowledge of the main local stakeholders, previously developed participatory processes, and inputs and examples provided by the UPV.

- The constituted local network in the Besòs landscape was highly comprehensive and knowledgeable, and benefited from a deeply established culture of networking and cooperation which has been the base of the restoration works of the final stretch of the Besòs river.
- The only missing key stakeholders were representatives of the regional government.
- Remote participation was not promoted given the success of the meeting.

6. TEAMWORK

- **Task 1: Which are the values that better represent the Besòs river landscape?**

BROADER SCALE

- **ENVIRONMENTAL**

- Restoration of water quality (more water, more wildlife)
- Connectivity among the different metropolitan natural areas
- Air quality
- It is the only stopover for migratory aquatic birds between Tordera and Llobregat
- Fluvial humanised area (urban and canalised river).
- Water; fluvial landscape
- Diversity: flora and wildlife
- River volume
- Wildlife refuge
- Biological corridor
- “Sponge” the territory (decrease density)
- Ecological corridor
- Biological corridor
- Biological corridor
- Biodiversity
- Biodiversity increase
- Water quality. Improved by wetlands action
- Ecological corridor (in general). Protected area (in particular)
- Biological corridor
- Importance of vegetation patches in forests
- Hydric resources
- Biodiversity increase
- Species restoration

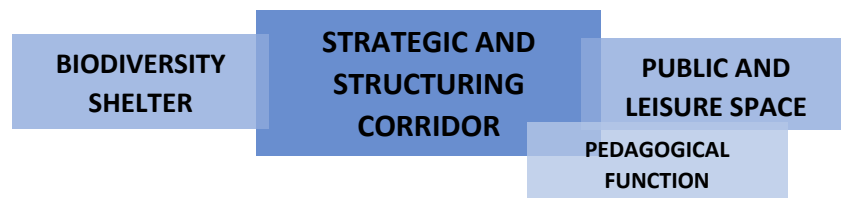
- **CULTURAL**

- Mosaic of areas
- Land structure
- Central axis
- Natural environment in a highly urbanised area
- Improves the landscape and greenery of the suburban environment
- Canalised river (walls). Different levels
- Priority area for education which contains Besòs Watershed
- Mediterranean habitat (river)

- **SOCIAL**

- Place of encounter/relationships for an important part of the population
- Public space, space for leisure
- Need to improve the coexistence of the social use and the maintenance of wildlife and flora in the river during the year
- Restoration of the green space for public use

- Place that promotes social interactions (positive for people's well-being and mental health)
- Iconic open space (general). Affordable housing (particular)
- Plural and inclusive space
- River use as a social success
- Adaptation of river's edge-greenway (bikes, trekking)
- Urban fabric- social relations
- Highly used public space
- Park, place for leisure
- Educational and scientific space
- Intercultural welcome territory
- Place of encounter
- Fluvial park like sport and health axis
- **ECONOMIC**
 - Stimulus in the vicinity of the river due to the large number of people and types of activities.
 - Central axis
 - Industry and tourism
 - Neighbours platforms
- **OTHER**
 - Alert system for fluvial park users
 - Place that promotes physical activity (improves health)
 - Place to relax
 - Potential climatic refuge



SITE SCALE

- **ENVIRONMENTAL**
 - Improvement of water quality
 - Biological and citizen connectivity (with Collserola, Serra Marina and Vallés)
 - Last opportunity to pay tribute to the damaged Besós Delta (Diagonal Mar failed)
 - Reserve and refuge areas
 - Green corridor
 - Coastline, beach and river's mouth.
 - Biodiversity hotspot. River's mouth-coastline
 - High value of the encounter: sea, river, sky. Blue infrastructure.
 - Ecosystem
 - Preserve biodiversity
 - Ecological connectivity-ecological processes
 - Biodiversity monitoring
 - Sea water intrusion

○ CULTURAL

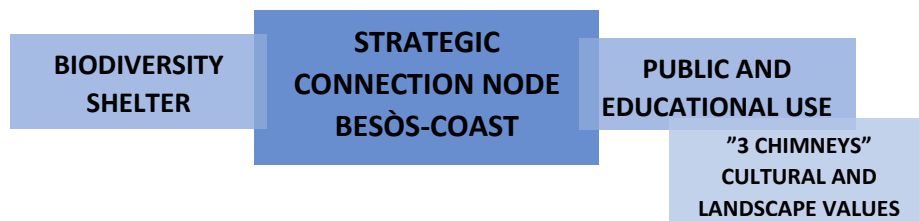
- Memory of former industrial and energy production 3X
- Chimneys
- Preserve quality of this coastline sector
- 3 chimneys as a landmark
- Industrial heritage (3 chimneys)
- Reference site, landmark, skyline, 3 chimneys
- Value of the beach as public space

○ SOCIAL

- Historic compensation for metropolitan infrastructure (mainly polluted)
- Recreational use
- Social connection among municipalities
- Pedagogy: promote museums
- Educational activities
- Environmental education
- Park: leisure, sport, walking

○ ECONOMIC

- Economic activities (industrial states)
- Harbour
- Tourism



• Task 2: Which are the Climate Change effects on the Besòs river landscape?

BROADER SCALE

○ TEMPERATURE

- Fluvial environment. Less friendly for users. Brings more insolation.
- Increase of invasive foreign species (tiger mosquito); tropical plants, exotic animals.
- Need to restore existing buildings (energetic restoration)
- Heat stroke of users in fluvial park
- Change of use in squares, streets...
- Change of use and schedules in fluvial park
- Highly asphalted streets with few trees = useless streets
- Heat waves
- Increase of energy demand
- Increase of temperature
- Illnesses and pests
- Need of shade in fluvial park
- Pests
- Decrease of biodiversity
- Modify biological diversity

- Affects vegetation
- Epidemic, health
- Open space design/ recreational
- Modify diversity
- Population mortality- children's suffering
- Increase social segregation
- Conditions health
- Increased salinity in the last stretch of the river
- RAINFALL
 - Specially flood risk
 - Disappearance of recovered species by decrease of river flow
 - Urban greenery will be affected – decrease quality
 - Problems for farming recovery
 - Drought. Impact on domestic water
 - Increase of pests: changes in flora and wildlife
 - Flooded areas- affection to infrastructures (railway)
 - Changes in aquatic communities
 - Changes in winter and summer bird life
 - Impact on aquatic wildlife due to extreme droughts
 - Increase of pests
 - Strengthen security plans
 - Decrease flow of rivers which are less dependent on water treatment plants (even dry out)
- FLOOD RISK
 - Damages in the river due to flood
 - Vegetal species not adapted to hydric environment. Flood problems
 - Sea level rise. Coastline erosion
 - Risk for the users of the fluvial park (elevation and so on)
 - Wastewater discharge in the river by overflow of the sewage network
 - Loss of heritage/economic resources
 - Flood risk - activities affection
 - Floods
 - Flood risk
 - May cause landscape degradation- decrease the use of the area (less benefits for people)
 - Damage on infrastructure
 - People security
- SEA LEVEL RISE
 - Decrease use of local coastlines
 - Modify beaches
- OTHER
 - Risk of forest fire
 - Health problem
 - Mosquito alarm
 - River-surroundings
 - Increase of invasive species, especially vegetation
 - Change in % wastewater purified - natural water. Increase of % wastewater purified, decrease of natural water

**WORSENING HEALTH
BECAUSE OF HEAT WAVES
AND NEW DISEASES**

LOSS OF BIODIVERSITY

**DECLINE IN PUBLIC USE
DUE TO HIGHER
EXPOSURE TO RISKS**

SITE SCALE

○ TEMPERATURE

- Difficulties to teach in primary and secondary schools due to lack of adaptation of school buildings
- Social demand of swim use
- Less attendance in the hottest time of the day
- Non foreign species
- Biodiversity loss
- Very hot summer nights
- Rainfall

○ RAINFALL

- Aquifer affection

○ FLOOD RISK

- Problems with railway cuttings (Renfe Bridge)
- More floods on Renfe Bridge and 3 chimneys area
- Increase of flood frequency and possible overflow
- Coastline flood potential (3x) by floods and storms
- Need to control fluvial park adjacent areas

○ SEA LEVEL RISE

- Loss of the coast
- Beach regression plus floods due to sea storms.
- Loss of touristic interest
- Saline intrusion
- Impact on retaining structures
- Modify beaches

○ OTHER

- Sea storm
- Presence of exotic or foreign species
- Risk of tropical illnesses

**SHORELINE RECESSION
AND BEACH LOSS**

INCREASE IN FLOOD RISK

**LOSS OF
BIODIVERSITY**

- **Task 3a: Which are the potential answers to the identified Climate Change effects?**

BROADER SCALE

- **TEMPERATURE**

- More ecological buildings
- Housing insulation
- Possibility to recover the role of the river as climatic refuge
- Climate justice
- Climate refuge
- Send awareness raising messages to users in relation to heat strokes
- Less paved streets, more trees
- Redesign urban structure/restoration
- Restore buildings with climate criteria

- **RAINFALL**

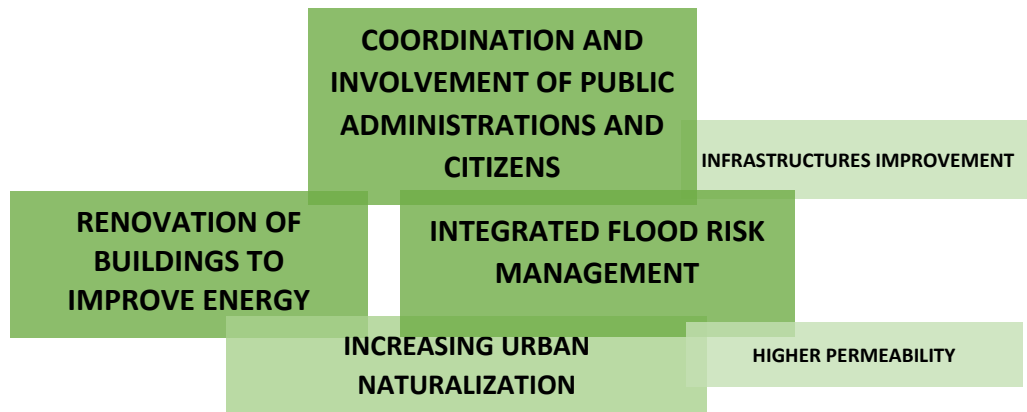
- Anti-DSU tanks
- Divide networks – rainfall tanks- reuse
- Increase soil permeability
- Organisational level of the watershed is an opportunity
- Management of rainwater. Studies to use urban water on green spaces.

- **FLOOD RISK**

- Water retention tanks
- Creation of flood areas on Besòs River edges (Vallés plain) in order to laminate flood
- Permeabilize soil
- Permeability
- Make watercourse more natural
- Build rainwater storage tanks
- Improve the design of urban infrastructure next to the river (it will be better adapted now and in the future.)
- Increase the capacity of the sewage network
- Modify railway layout
- Increase the time to anticipate river floods

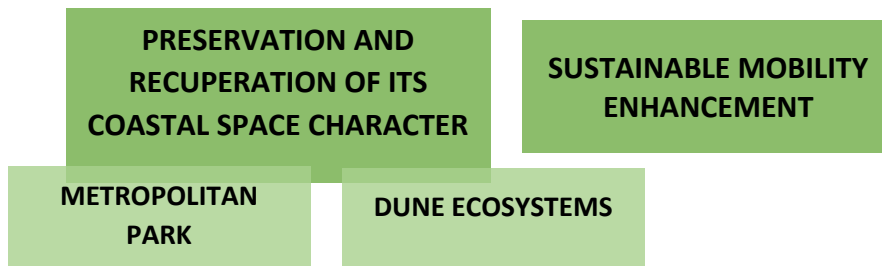
- **OTHER**

- Actions to remove foreign species
- Citizen's involvement
- Society involvement and collaboration
- Provide access to the river for an important part of the closest population, so access to greenery
- Coordination among authorities/institutions
- In order to reduce forest fires: create landscape
- Land identity
- Unity of action among stakeholders
- Rearrangement of population
- Reduce car use



SITE SCALE

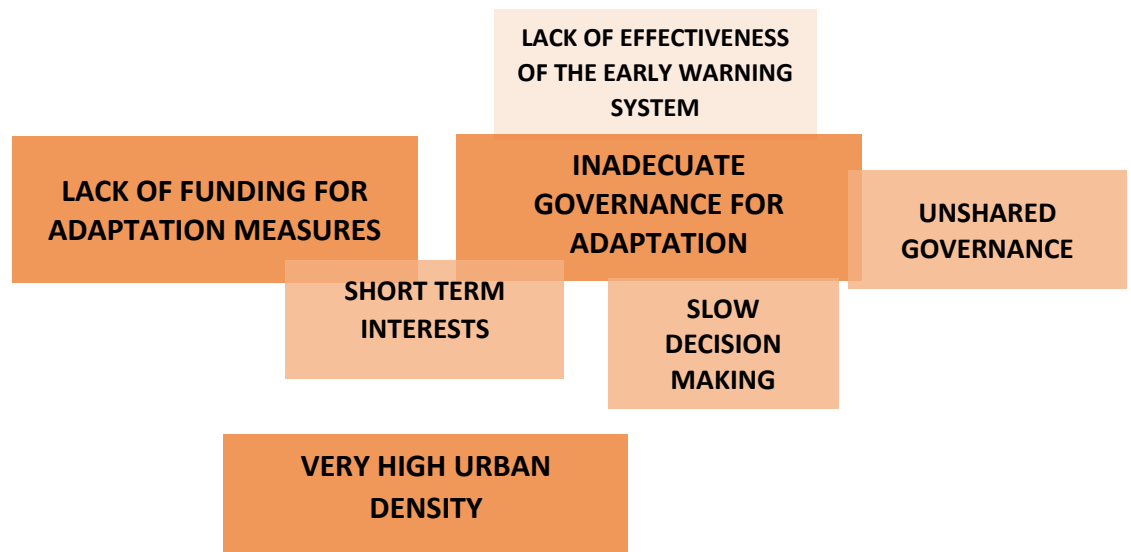
- **TEMPERATURE**
 - More green area
 - Sustainable buildings
 - Tree plantation
 - Provide shade and fresh areas as refuge for older people and children
- **RAINFALL**
 - Elevation/Modify railway layout
- **FLOOD RISK**
 - Increase the capacity of the sewage system/sewer pipe
 - Littoral Park enlarged and floodable
 - New Metropolitan Park on the coastline
- **SEA LEVEL RISE**
 - Space for dunes in the beach
 - Design a waterfront with climate change criteria
 - Adapt dune landscape
 - Improvement of Llevant sewer pipe as a retaining structure
 - Place for environmental restoration which includes measures of sea level rise adaptation
 - Not to build houses nor hotels on the sea frontline
- **OTHER**
 - Electrifying infrastructures
 - Large littoral Metropolitan Park ≠ no need of new neighbourhood
 - Sustainable mobility
 - Creation of tracks for sustainable mobility
 - Space revaluation



- **Task 3b: Which are the threats or weaknesses which could prevent the implementation of those opportunities for resolution?**

BROADER SCALE

- **TEMPERATURE**
 - Household income constraint (restoration)
 - Users ignore warnings
 - Budget, obtain economical resources
 - Funding
 - Budget €
- **RAINFALL**
 - Administrative normative terms
 - Funding and willingness
 - Lack of €
 - Economic difficulties of dwellers
- **FLOOD RISK**
 - Space that is increasingly being urbanised (permeability)
 - Too many infrastructures in the watershed
 - Too many false warnings informing about alarms
 - Little budget prioritization in applying actions to increase sewage networks
 - Lack of budget (concern) in applying urbanistic changes
 - Tq/Flood. Population shift
- **OTHER**
 - Slowness in decision making
 - Lack of politic support
 - Need of public investment
 - Economic concerns prevail when building Besós edges (walls out)
 - Lack of focus in Besós of supramunicipal authorities
 - Private interests prevail over public interests
 - Short term policies and politicians without vocation
 - Lack of economic resources
 - Increase of foreign species is faster than its removal
 - Problems of feeding
 - Scarce capacity for shared governance
 - Highly consolidated urban fabric – adaptation problems
 - High population density
 - Strong rapid change in our lifestyle (consumption and mobility model)



SITE SCALE

- **RAINFALL**
 - Economic willingness
- **FLOOD RISK**
 - Property speculation
 - Lack of politica willingness
 - Funding
- **SEA LEVEL RISE**
 - Bureaucracy
 - Llevant sewer pipe. Difficulties in collaborating and funding
 - Littoral speculation
 - Economic interests

LAND USE CONFLICT

**LACK OF FUNDING AND
POLITICAL PERSPECTIVE**



7. WORKPLAN, CLOSURE AND NEXT STEPS

- Francisco Galiana (UPV) thanks the participants for their contributions and summarizes the next steps of the Pilot Landscape workplan. Two possible dates for Workshop 2 are proposed.
- Carme Ribas (Consorti del Besòs) thanks the participants for their contributions

CONCLUSIONS:

- It is agreed by the local network that Workshop 2 will take place in October 30th. It will be focused on co-defining a possible LACAP structure, contents and funding resources.
- Many participants in the workshop authorize the inclusion of their organizations in the AELCLIC webpage.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The constituted Besòs local network is very comprehensive and knowledgeable. It was not possible to involve representatives from the regional government in the workshop, but they apparently have not been involved in any previous participatory processes in the area. / **ACTIONS: Consorci del Besòs will send a letter of appreciation to all guests.**
- The organization of the Workshop by Consorci del Besòs was exemplary. The main local stakeholders were contacted and invited well in advance. UPV received the list of confirmed attendants before the meeting. The Workshop took place in excellent facilities, and the Consorci also organized and sponsored the catering service for the coffee break. / **ACTIONS: Consorci del Besòs will take a similar role regarding the 2nd Workshop**
- The contributions of the representatives from Consorci del Besòs and Barcelona Regional during the first part of the workshop were highly valuable. They made excellent presentations that showed the great work that they have been doing in the pilot landscape for years, which must be considered as the starting point for any further work. They also submitted later to the Universitat Politècnica de València the climate change plans already adopted in the area via e-mail. / **ACTIONS: UPV will consider all the information provided in order to integrate it into the presentations in the Workshop 2. The agenda for that Workshop will be agreed with Consorci del Besòs and Barcelona Regional, so they will be able to decide in which way they want to contribute (if any) to the following Workshop.**
- There were many similarities regarding the main landscape values identified by the stakeholders at both work scales. The broader area and the 3 chimneys site were both considered as strategic locations within the metropolitan surroundings, with important connectivity functions at different levels. Both working areas present educational and pedagogical values and are important as biodiversity refuges / **ACTIONS: Universitat Politècnica de València will consider the identified values in relation to the preparation of Workshop 2 presentations.**
- More differences arose between both levels of detail while discussing potential climate change impacts. While at the general scale the main focus was on health impacts and their public use implications, there were concerns on the site scale regarding its own potential disappearance due to the receding coastline. Impacts on biodiversity were commonly identified at both working scales. / **ACTIONS: Universitat Politècnica de València will consider the main identified impacts in relation to the preparation of Workshop 2 presentations.**
- Many of the detected potential answers to the identified climate change threats were therefore different between both working scales. The identified potential answers can be, in each case, related to the character of the area: a green corridor in an urban environment, on the broader scale, and the coastal character of the 3 chimneys site. A nature-based approach to climate change adaptation could also be found underlying at both levels of detail. / **ACTIONS: Universitat Politècnica de València will analyze the options in which the identified potential answers could be integrated within a LACAP and present the results during the second workshop.**
- The lack of funding and competition over land use were the main threats or barriers identified for successful climate change adaptation in the area. The lack of adequate governance and some related issues were also present, mainly on the broader scale. / **ACTIONS: Universitat Politècnica de València will analyze the potential ways in**



which a LACAP could help to overcome the identified barriers, and present the results within the second workshop.

- Several stakeholders confirmed their interest in being included in the AELCLIC web as part of the Riu Besòs Local Network. / ACTIONS: Universitat Politècnica de València will provide the AELCLIC web administrator with their contact details in order to include the local network structure in the AELCLIC web.
- A press release was prepared by the Consorci del Besòs after the workshop and uploaded into their web page (<https://consorcibesos.cat/el-consorci-del-besos-col-labora-en-lorganitzacio-dunes-sessions-de-treball-sobre-ladaptacio-dels-paisatges-europeus-al-canvi-climatic-en-el-marc-del-projecte-europeu-aelcl/>) / ACTIONS: Universitat Politècnica de València will circulate the press release and include it in further reports regarding the societal impact of the project.
- WORKSHOP2: Scheduled in October 30th / ACTIONS: Universitat Politècnica de València will prepare the pertinent invitation and agenda drafts, and Consorci del Besòs will review and circulate them to the local network.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - OUTCOME 1 (Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC). LEVEL OF ACHIEVEMENT: 5
 - OUTCOME 2 (Creation of the local network for the Pilot Landscape Riu Besòs). LEVEL OF ACHIEVEMENT: 4
 - OUTCOME 3 (Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing). LEVEL OF ACHIEVEMENT: 5
 - OUTCOME 4 (Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - The absence of representatives from the regional government was the only shortcoming in the creation of the local network.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - Excellent work by the Consorci del Besòs in setting up the local network, inviting them to take part in the workshop, and every other organizational task prior, during and after the workshop.
 - Highly participative and knowledgeable stakeholders. Very high level of expertise and interest on the matter, which led to a fruitful discussion during the teamwork.
 - Great presentations by Consorci del Besòs and Barcelona Regional, which set the tone for the teamwork.
 - Good preparation of materials by Aalto University and UPV
 - Clear definition of the expected outcomes
 - Good time planning and subsequent adjustment to the schedule
 - Very useful reference materials from other AELCLIC workshops
 - Excellent facilities, which made also possible the involvement of Aalto University via Skype.
- **Learnt lessons and recommendations for similar activities in other places:**
 - Working with local counterparts with the experience, knowledge and resources needed to take the lead and excel in the organization of this kind of activity maximizes the success and return of the workshop
 - Invitations to the workshop were sent more than 3 weeks in advance of the date, followed by telephone contact. The high level of attendance achieved was possible only because the organisational tasks started with such a wide time range prior to the event, and telephone contact was developed subsequently.
 - Developing a workshop with a local network which already has a culture and experience of participatory work, and which have been working together for a long time, is also a key ingredient for success.
 - Knowing beforehand the attendance list allowed for preparing and presenting materials suited to the level and interests of the audience.
 - Keeping the workshop duration at 3 hours is still considered as the best option after this experience.
- **Learnt lessons and recommendations for future activities in the same place:**
 - See previous section.
- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - High. As already mentioned, the level of involvement and expertise showed by the leading members of the local network, and the experience and culture of



participatory work of the attendants, was key in the successful development of the activity.

ACTIVITY: Workshop1_LA MATA-TORREVIEJA_PILOT LANDSCAPE

DATE and TIME: 25.9.2019, 16:00-19:00

PLACE: Torre Vieja (Spain), "Virgen del Carmen" Culture Centre

ORGANIZERS:

- Carmen Gómez / Torre Vieja City Council
- Juan Antonio Pujol / Torre Vieja City Council
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Carmen Gómez / Torre Vieja City Council
- Víctor M. Costa / Orihuela City Council
- José Rubio / Torre Vieja City Council
- Carmen Morate / Torre Vieja City Council
- Jesús Sánchez / Empresa Mixta Aguas del Arco Mediterráneo, S.A. (AGAMED)
- Angel Gilí / Acciona Servicios Urbanos
- Manuel J. Pérez / Actúa, Servicios y Medio Ambiente
- Delfina Giménez / Criterio Verde
- Beatriz Almalcha / Torre Vieja Pesca Tradicional
- Adrián Canales / Ocio Mar Torre Vieja
- Vicente Manuel Martínez / Odisea Diving Torre Vieja Sub C.B
- Concepción Torres / SWS

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC.
- Creation of the local network for the Torre Vieja Pilot Landscape
- Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing.
- Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop.
- Co-identification and co-designation of the pilot landscape area

AGENDA:

1. Welcome and presentation.
 2. Introduction to the AELCLIC project.
 3. Potential local climate scenarios.
Coffee break
 4. Workshop presentation and organization. Presentation of participants.
 5. TEAMWORK
 - a. TASK 1: Identification of the Torre Vieja Landscape core values.
 - b. TASK 2: Identification of climate change effects on the Torre Vieja Landscape.
 - c. TASK 3: Brainstorming about possible solutions to the identified effects and barriers.
 6. Agenda and workplan proposal for the following Workshop 2. Co-identification and co-designation of the pilot landscape area.
-

1. WELCOME

- Welcoming words by Carmen Gómez (Torre Vieja City Council)

2. INTRODUCTION TO THE AELCLIC PROJECT

- Francisco Galiana (UPV) summarizes the goals, expected outcomes and structure of the project, as well as the location and reasons for the selection of the Torre Vieja Pilot Landscape. The AELCLIC web page is presented.

CONCLUSIONS:

- The AELCLIC project is presented as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of a series of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future Demonstrator project

3. POTENTIAL LOCAL CLIMATE SCENARIOS

- Emilio Servera (UPV) briefly reviews some existing datasets which already show some observed climate change effects at a regional, national and global level. Global and regional climate change scenarios are then introduced, and the most important expected changes over temperature, rainfall, flood risk and sea level rise in the Torre Vieja pilot landscape are presented.

CONCLUSIONS:

- Climate change effects are already noticeable in Torre Vieja
- Climate change should be considered when deciding which should be the future of the Torre Vieja landscape
- Torre Vieja will be warmer and drier, but flood risk will increase. Very important changes in the landscape will be caused by sea level rise which in principle will unfold more slowly
- At this work scale, the potential influence regarding the magnitude of the climate change that will happen in Torre Vieja is very small. However, a local network can be key in establishing the way that the adaptation requirements to such changes are accomplished.

4. WORKSHOP PRESENTATION AND ORGANIZATION.

- Francisco Galiana (UPV) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes will be later placed on several flipcharts, divided in several pre-defined areas.
- Repetition of sticky notes with the same or similar texts by different stakeholders was allowed since it would be used as an indicator of the relevance of the topic.

5. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Carmen Gómez	LOCAL/REGIONAL AUTHORITY	Ajuntamiento Torreveja
Victor M. Costa	LOCAL/REGIONAL AUTHORITY	Ajuntament Orihuela
José Rubio	LOCAL/REGIONAL AUTHORITY	Ajuntamiento Torreveja
Carmen Morate	SOCIETAL ORGANIZATION	Ajuntamiento Torreveja
Jesús Sánchez	PRIVATE SECTOR	Empresa Mixta Aguas del Arco Mediterráneo, S.A. (AGAMED)
Angel Gilí	PRIVATE SECTOR	Acciona Servicios Urbanos
Manuel J. Pérez	PRIVATE SECTOR	Actúa, Servicios y Medio Ambiente
Delfina Giménez	PRIVATE SECTOR	Criterio Verde
Beatriz Almalcha	PRIVATE SECTOR	Torreveja Pesca Tradicional
Adrián Canales	PRIVATE SECTOR	Ocio Mar Torreveja
Vicente Manuel Martínez	PRIVATE SECTOR	Odisea Diving Torreveja Sub C.B
Concepción Torres	PRIVATE SECTOR	SWS

CONCLUSIONS:

- The local network was established by the Torreveja City Council, based on inputs and examples provided by the UPV regarding the type of stakeholders to be convened
- The constituted local network in Torreveja showed a strong presence of the private sector but would benefit from an increase in representatives from regional authorities (particularly, from the “Lagunas de La Mata y Torreveja” Natural Park), the research sector and societal organizations.
- A key private actor (the operating company in the salt mines) was invited but did not take part in the workshop.
- 4 attendants from the private sector left during the coffee break. 3 of them explained that the aim of their companies was the development of tourist activities in the sea, and therefore felt that they were not able to contribute to the workshop
- Remote participation was not promoted based on the limited success of the previous experience in the Huerta Pilot Landscape.

6. TEAMWORK

- **Task 1: Which are the values that better represent the landscape of La Mata-Torreveja?**
 - ENVIRONMENTAL
 - Fauna biodiversity.
 - Coastal areas biodiversity
 - Sand dunes
 - Coves of Torreveja (Alfredo Nobel)
 - Natural Park of Las Salinas y Laguna de la Mata
 - Lagoons of Natural Park of Las Salinas y Laguna de la Mata
 - Natural Park. Water Mill.
 - Bank ecotones of the Natural Park Lagoons
 - The salt mines at the lagoons

- **SOCIAL**
 - Fishing
 - Boardwalk
 - Boardwalk (Juan Aparicio)
 - Yacht clubs
 - Eras de la Sal
 - The weather
 - Boardwalks and urban areas architectural values
 - Urban fabric of the urban area
 - Urban residential areas
 - Tourism
- **CULTURAL**
 - Sea-sports
 - Marine fishing
 - Historic quay area
 - Vineyard agricultural area
 - Old railway track. Green Way
- **ECONOMIC**
 - Salt mines
 - Beaches
 - Beaches
 - Beaches
 - Tourism
 - Beach Tourist Development
- **OTHER**
 - The mud baths in the lagoons
 - The city as a homogeneous metropolitan area body



• **Task 2: Which are the Climate Change effects on the La Mata-Torre Vieja Landscape?**

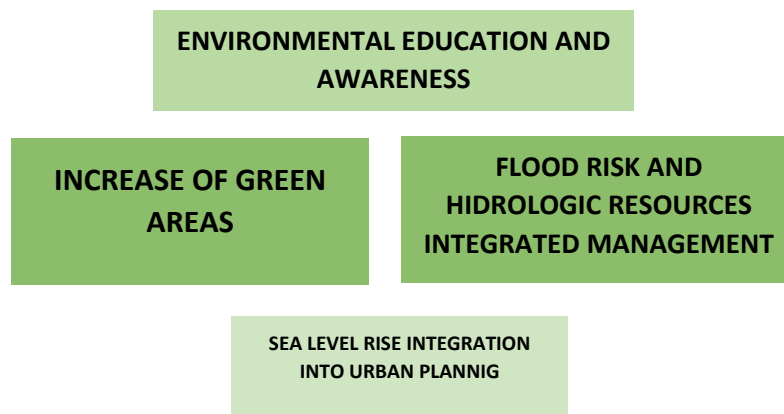
- **TEMPERATURE**
 - Abnormal behavior of plant species
 - Plant species disorder
 - Flora and wildlife species extinction in the Natural Park
 - Bird behavior changes
 - Modification of marine wildlife (increase of higher water temperature species)
 - Urban vegetation change and lower cover percentage
 - Increase of diseases and discomfort due to the presence of insects
 - Tourism affection due to increased hours with excessive heat (decrease in good hours)
 - Higher energy consumption
 - Higher temperature / higher electricity consumption / increase of CO₂ emissions

- Increased tourism season in summer (positive)
- RAINFALL
 - Plant species disorder
 - Increase of diseases and discomfort due to the presence of insects
 - Flora and wildlife species extinction in the Natural Park
 - Increase in water consumption due a negative maintenance
 - Urban vegetation change and lower cover percentage
 - Lower use of rainwater
- FLOOD RISK
 - Negative image of the municipality due to the effects of the “gota fría” (cold drop / cold front)
 - Economic losses due to floods
 - Disappearance of beaches due to sand loss
- SEA LEVEL RISE
 - Disappearance of beaches due to sand loss
 - Danger of disappearance of the flora and wildlife of the lagoons
 - Posidonia seagrass beds poor health
 - Need to consider new urban planning
- FOREST FIRE RISK
- OTHER
 - Urban life disruption



- **Task 3a: Which are the potential answers to the identified Climate Change effects?**
 - TEMPERATURE
 - Increase in green areas
 - Creation of urban green lungs
 - Increase in street trees and green areas
 - Tree planting
 - Excuse to develop a different city
 - RAINFALL
 - Increase in climate adapted green areas
 - Use of water
 - FLOOD RISK
 - Facilitating water flows
 - Measures in flood risk areas
 - Storm water runoff systems
 - Rainwater network
 - Water retention tanks
 - Rainwater storage system rethinking

- Sidewalks elevation
- Wetlands restoration
- SEA LEVEL RISE
 - Modification of the coastline
- FOREST FIRE RISKS
- OTHER
 - Stop the building industry
 - Environmental education
 - New society more aware of climate change



- **Task 3b: Which are the threats or weaknesses which could prevent the implementation of those opportunities for resolution?**
 - TEMPERATURE
 - Outdated urban planning
 - Funds increase
 - A global problem (overall)
 - RAINFALL
 - Need for measures in beaches
 - Cost increase
 - Large investments and infrastructure
 - FLOOD RISK
 - High expenses
 - High urban density
 - SEA LEVEL RISE
 - Economic losses
 - High investment
 - FOREST FIRE RISK
 - OTHER
 - Lack of social awareness
 - Economic interests
 - Private interests
 - Disregard the problem
 - Citizen mindset
 - Raise awareness (use of plastics, meat consumption, recycling)

**NEED FOR HIGH
INVESTMENTS**

**LACK OF SOCIAL
AWARENESS**

7. WORKPLAN, CLOSURE AND NEXT STEPS

- It was agreed by the stakeholders to focus the work in a particular area from the waterfront of La Mata Beach to the protected area of the Lagunas de la Mata and Torrevieja, with some mixed density urban areas in the middle. It was decided that the Pilot Landscape would therefore be named as “La Mata – Torrevieja”
- Francisco Galiana (UPV) thanks the participants for their contributions and summarizes the next steps of the La Mata - Torrevieja Pilot Landscape workplan.

CONCLUSIONS:

- The local network decided, within a range of possible dates, that Workshop 2 will take place on October 23rd. It will be focused on co-defining a possible LACAP structure, contents and funding resources.
- Most of the participants in the workshop authorized the inclusion of their organizations in the AELCLIC webpage.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The constituted local network in La Mata-Torreveija has a strong presence from the private sector but would benefit from an increase in representatives from the regional authorities (particularly, from the natural park), research sector civil groups. The presence of a missing key representative from the private sector (the operating company in the salt mines) would be positive too. / **ACTIONS:** Torreveija City Council / Universitat Politècnica de València will try to involve some new stakeholders, and to encourage some invited stakeholders that did not attend to be present in the 2nd Workshop.
- The Torreveija City Council played a key role in the organization of the Workshop by identifying and inviting the main local stakeholders. The Workshop took place in well suited local facilities, and the Council also organized and sponsored the catering service for the coffee break. / **ACTIONS:** Torreveija City Council will take a similar role regarding the 2nd Workshop
- The stakeholders were able to identify diverse landscape values, which were focused around the coastal area and the “Lagunas de la Mata y Torreveija” Natural Park. / **ACTIONS:** Universitat Politècnica de València will analyze the main regulations and plans affecting those areas and the activities taking place there. The conclusions of such analysis will be presented during Workshop 2, in order to achieve a better alignment of the LACAP with the current agendas. Expert involvement from the city council might be considered too for some of the topics.
- The rise in temperatures and sea level were considered as the main potential causes of impacts in the pilot landscape. Several links were identified between climate change and the values previously identified. It was also made clear that urban life and tourism, which is the main economic activity in the city, will be affected by climate change. A potential positive impact was identified in this regard, since one of the stakeholders pointed out that longer summers can lead to a longer tourism season. Some other stakeholders argued that, on the other hand, most owners of second homes in the municipality don't spend summer in Torreveija, since it becomes too hot for them, and therefore could spend less time in the city if summer length continues increasing. / **ACTIONS:** Universitat Politècnica de València will focus on those key areas while presenting the current climate change regulatory and planning framework during the second Workshop.
- Most of the potential answers to the identified climate change impacts could be related to city greening schemes, flood management, and other actions which can be incorporated into urban planning. Increasing the current levels of environmental education and awareness was also considered a key cross-cutting action. / **ACTIONS:** Universitat Politècnica de València will provide further information during the second workshop regarding those key opportunities to address climate change adaptation and some possible ways in which they could be integrated within a LACAP.
- The need for major investments was considered the main barrier for climate change adaptation actions. / **ACTIONS:** A specific activity will be developed by Universitat Politècnica de València during the second workshop in order to identify key missing stakeholders which could provide additional funding for the development of adaptation actions in the pilot landscape.
- Several stakeholders confirmed their interest in being included in the AELCLIC web as part of the Torreveija Local Network. / **ACTIONS:** Universitat Politècnica de València

will provide the AELCLIC web administrator with their contact details in order to include the local network structure in the AELCLIC web.

- A draft press release was prepared by UPV and circulated by the Torreveija City Council regarding the beginning of the AELCLIC work in Torreveija. This led to the workshop being announced in local and regional media (e.g. https://www.elperiodic.com/torreveija/frente-costero-torreveija-elegido-como-paisajes-piloto-representativos-suroeste-europa_639882) and also to the presence in the workshop of a journalist from the local weekly newspaper “Vista Alegre” / ACTIONS: Universitat Politècnica de València will cooperate with the journalist in order to review and edit the AELCLIC story for the local weekly newspaper.
- A detailed pilot area was defined within the workshop and named as “La Mata-Torreveija” / ACTIONS: Universitat Politècnica de València will take into account the suggested area and name, and make arrangements to include it in the AELCLIC web.
- WORKSHOP2: Scheduled well in advance on October 23rd, what should encourage attendance / ACTIONS: Torreveija City Council will book the same room and invite and provide the appropriate details to the stakeholders.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 2 (Creation of the local network for the Torre Vieja Pilot Landscape). LEVEL OF ACHIEVEMENT: 3
 - o OUTCOME 3 (Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 4 (Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 5 (Co-identification and co-designation of the pilot landscape area). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o The workshop date was decided just 2 weeks in advance, and the invitations were sent later by the city council.
 - o Some key stakeholders, e.g. representatives from the Natural Park and the operating company in the salt mines, did not attend the workshop.
 - o Some attendants from the private sector left during the coffee break.
 - o The list of invited and confirmed stakeholders was asked but not received before the workshop, and therefore the activity had to be planned without knowing in detail the profile of the attendants
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Deep involvement by the Torre Vieja City Council in setting up the local network and inviting them to take part in the workshop.
 - o Highly participative stakeholders with deep knowledge of the local landscape.
 - o Clear definition of the expected outcomes
 - o Good time planning based on the experience obtained during the Workshop 1 in the Huerta de Valencia-Alboraya pilot landscape
 - o Very useful reference materials from other AELCLIC workshops
 - o Adequate workshop location and preparation of materials
 - o Very good public dissemination of results, including the Universitat Politècnica de València contribution to a positive article (<http://vistaalegretorre vieja.com/?p=7036>) in the "Vista Alegre" local weekly newspaper, which could also be found in the printed version (https://issuu.com/vistaalegretorre vieja/docs/va_3134/14) which is freely distributed in the municipality
- **Learnt lessons and recommendations for similar activities in other places:**
 - o It was decided after the Huerta Workshop 1 to reduce the duration of following workshops from 3,5 hours to 3 hours. Workshop 1 in Torre Vieja was already planned as a 3 hours long activity. This change is positively assessed, and 3 hours is therefore considered as the preferred option for the rest of the workshops since it enables a better engagement by the participants.
 - o The coffee break was scheduled after the presentations by the speakers, and right before the beginning of the teamwork. This is considered a good option, when feasible, since the coffee break can be used as an ice breaker activity where the workshop facilitators can begin the dialogue with the participants during an informal activity.
 - o Some stakeholders left during the coffee break alleging that they didn't feel able to contribute to the teamwork activities in the workshop due to their professional

background. This stressed the importance of knowing in advance the assistants' profile, in order to develop customized presentations during the first part of the workshop which are adapted and appealing to the whole range of assistants.

- Invitations should be sent if possible further in advance, in order to ease the attendance to the workshop
- **Learnt lessons and recommendations for future activities in the same place:**
 - See previous section.
- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - High. As already mentioned, the stakeholders were knowledgeable about the municipality details, and therefore the discussion focused on key elements such as flood risk management and the climate change potential impacts on the tourist activity from a very local perspective.

ACTIVITY: Workshop1_PARC NATURAL DE L'ALT PIRINEU_PILOT LANDSCAPE

DATE and TIME: 4.10.2019, 09:00-15:00

PLACE: Llavorsí (Lleida, Spain)

ORGANIZERS:

- Marc Garriga Lujan / Director of Parc Natural de l'Alt Pirineu (Territory and Sustainability Department, Regional Government)
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Jaume Vicens i Perpinyà / Territory and Sustainability Department
- Pere Porta Colom / Territory and Sustainability Department
- Jaume Dalmau / Department of Business and Knowledge
- Manel Torres Cerony/Dept. of Agriculture, Livestock, Fishing and Food
- Josep Ramón Fondevila Isús / Lleida Provincial Council
- Jordi Canut Bartra / Regional Council of Pallar Sobirà
- Miquel Sala Muntada / Regional Council of l'Alt Urgel
- Joan Edó Beltran /Municipality of Guingeta d'Aneu
- Llorenç Sánchez Abrié / Municipality of Vall de Cardos
- Araceli Colomé Abrié / Municipality of Lladorre
- Amat Romero Toló /Municipality of d'Esterri d'Àneu
- Jordi Fillet Carrera / Municipality of Llavorsí
- Josep Lluís Pique Subirana / Municipality of Soriguera
- Antoni Navinés Miró / Municipality of Montferrer i Castellbó
- Xavier Llena Cano / Municipality of Alt Aneu
- Miguel Pocallet Ramón / Municipality of Alins
- Marc Casal Boneta / Municipality of Farrera
- Montse Arnau Liarte / Municipality of Tírvia
- Xavier Farré Espar / Cos d'Agents Rural
- Josep Urbach Jordan / Entitat Municipal Descentralitzada (EMD) Montenartró
- Josep Noves Ruf / Entitat Municipal Descentralitzada (EMD) de Civis.
- Guillem Estaban Isús / Entitat Municipal Descentralitzada (EMD) d'Isili Alós
- Francés Capdevilla Torrell / Entitat Municipal Descentralitzada (EMD) de Tomafort
- Ignasi de Castellarnau Riva / Unió de Pagesos
- Josep Ticó Catalán /Asociación profesional de Ramaderes de Vaca Bruma dels Pirineus
- Jordi Pallé Cases / Patronat de turisme del Pallars Sobirà
- Rodrigo González Dávila / Federació Catalana de Pesca Esportiva i Casting
- Jesús Martín Martín / Lo Pi Negre (NGO)

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC.
- Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with AELCLIC Workshops.

AGENDA*:

1. Welcome and presentation to the natural park governing board.
2. Introduction to the AELCLIC project.
3. Climate change impacts and potential adaptation measures in the Alt Pirineu Natural Park.
4. Presentations of participants
5. Work plan, closure and next steps

* Workshop 1 took place as one of the activities planned within a meeting of the Governing Body of the Natural Park. This governing board, which meets usually twice a year, had to approve the participation of the Natural Park in the AELCLIC Project. The whole meeting of the governing board took longer than 5 hours, since several other topics were on the agenda. This report focuses only on the part of the meeting related to the AELCLIC Project.

1. WELCOME

- Welcoming words and introduction by Marc Garriga (Parc Natural de l'Alt Pirineu).

2. INTRODUCTION TO THE AELCLIC PROJECT

- Francisco Galiana (UPV) summarizes the goals, expected outcomes and structure of the project, as well as the location and reasons for the selection of the Parc Natural de l'Alt Pirineu Pilot Landscape. The AELCLIC web page is presented.

CONCLUSIONS:

- The AELCLIC project is presented as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future project.
- Some potential workplans will be presented later in order to be considered by the governing board in their decision regarding the involvement of the Natural Park in the project.

3. CLIMATE CHANGE IMPACTS AND POTENTIAL ADAPTATION MEASURES IN THE ALT PIRINEU NATURAL PARK.

- Emilio Servera (UPV) briefly reviews some existing datasets, which already show some observed climate change effects in the Pyrenees and the Natural Park. Global and regional climate change scenarios are then introduced, and the most important expected changes over temperature, rainfall, and snow depth in the Parc Natural de l'Alt Pirineu pilot landscape are presented. Some options to include adaptation criteria in the planning and management of the Natural Park, and the possible role of the AELCLIC project, are proposed.

CONCLUSIONS:

- Climate change effects are already significant in the Pyrenees, in general, and the Natural Park, in particular.
- The magnitude of future changes in temperature, rainfall and snowfall can already be assessed.
- Those expected changes should be considered in the Natural Park planning and management. There are several options to do it.

- At this work scale, the potential influence regarding the magnitude of the climate change that will happen in the Parc Natural de L'Alt Pirineu is very small. However, starting to work on adaptation on a local/regional level can be key regarding the way such change is answered.

4. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Jaume Vicens i Perpinyà	LOCAL/REGIONAL AUTHORITY	Territory and Sustainability Department (Assistant Director General of Biodiversity)
Pere Porta Colom	LOCAL/REGIONAL AUTHORITY	Territory and Sustainability Department. (Director of Institute for the Development and the Promotion of the Alt Pirineu)
Jaume Dalmau	LOCAL/REGIONAL AUTHORITY	Department of Business and Knowledge
Manel Torres Cerony	LOCAL/REGIONAL AUTHORITY	Dept. of Agriculture, Livestock, Fishing and Food
Josep Ramón Fondevila Isús	LOCAL/REGIONAL AUTHORITY	Lleida Provincial Council
Jordi Canut Bartra	LOCAL/REGIONAL AUTHORITY	Regional Council of Pallar Sobirà
Miquel Sala Muntada	LOCAL/REGIONAL AUTHORITY	Regional Council of l'Alt Urgel
Joan Edó Beltran	LOCAL/REGIONAL AUTHORITY	Municipality of Guingeta d'Aneu
Llorenç Sánchez Abrié	LOCAL/REGIONAL AUTHORITY	Municipality of Vall de Cardos
Araceli Colomé Abrié	LOCAL/REGIONAL AUTHORITY	Municipality of Lladorre
Amat Romero Toló	LOCAL/REGIONAL AUTHORITY	Municipality of d'Esterri d'Àneu
Jordi Fillet Carrera	LOCAL/REGIONAL AUTHORITY	Municipality of Llavorsí
Josep Lluís Pique Subirana	LOCAL/REGIONAL AUTHORITY	Municipality of Soriguera
Antoni Navinés Miró	LOCAL/REGIONAL AUTHORITY	Municipality of Montferrer i Castellbó
Xavier Llena Cano	LOCAL/REGIONAL AUTHORITY	Municipality of Alt Aneu
Miguel Pocallet Ramón	LOCAL/REGIONAL AUTHORITY	Municipality of d'Alins
Marc Casal Boneta	LOCAL/REGIONAL AUTHORITY	Municipality of Farrera
Montse Arnau Liarte	LOCAL/REGIONAL AUTHORITY	Municipality of Tírvia
Xavier Farré Espar	PUBLIC SECTOR	Cos d'Agents Rural (rural ranger authority)
Josep Urbach Jordan	PUBLIC SECTOR	EMD Montenartró (Sub-municipal local entity)
Josep Noves Ruf	PUBLIC SECTOR	EMD de Civis (Sub-municipal local entity)
Guillem Estaban Isús	PUBLIC SECTOR	EMD d'Isili Alós (Sub-municipal local entity)
Francés Capdevilla Torrell	PUBLIC SECTOR	EMD de Tomafort (Sub-municipal local entity)
Ignasi de Castellarnau Riva	SOCIETAL ORGANIZATION	Unió de Pagesos (Farmers Union)

PARTICIPANT	SECTOR	INSTITUTION
Josep Ticó Catalán	SOCIETAL ORGANIZATION	Asociación profesional de Ramaderes de Vaca Bruma dels Pirineus (Profesional Association of Livestock Breeders of Pirineus Bruma Cow)
Jordi Pallé Cases	SOCIETAL ORGANIZATION	Patronat de turisme del Pallars Sobirà (County Tourism Board)
Rodrigo González Dávila	SOCIETAL ORGANIZATION	Federació Catalana de Pesca Esportiva i Casting (Catalan fishing and casting association)
Jesús Martín Martín	SOCIETAL ORGANIZATION	Lo Pi Negre (NGO)

CONCLUSIONS:

- The Governing Board of the Natural Park, which includes representatives from every sector involved in the management of the protected area, is a well-established, broad local network. The management schemes of the protected area imply that the participation of the Natural Park in the AELCLIC project is subject to prior approval by this Governing Board
- Since the Governing Board won't meet again until next year, in case the Natural Park decides to take part in the AELCLIC Project, the local network in Parc Natural de L'Alt Pirineu would probably suffer some changes regarding the stakeholders which are involved in the rest of the activities to be developed during 2019.

5. WORKPLAN, CLOSURE AND NEXT STEPS

- Marc Garriga Lujan (Director of Parc Natural de l'Alt Pirineu) requests the Governing Board to decide on the participation of the Natural Park in the AELCLIC-PATHFINDER project. The Governing Board agrees to take part in the project as one of the Pilot Landscapes.
- Francisco Galiana (UPV) thanks the decision to participate in the AELCLIC-PATHFINDER to the Governing Board, and summarizes two alternative workplans, so the Governing Board can choose one.

CONCLUSIONS:

- The local network is aware of the potential impacts of climate change in the Natural Park values and on the activities that take place in its landscape.
- The AELCLIC project is considered as an opportunity to complement the current guiding principles of the Park management (there is no management plan approved in the Park, although it should have one according to the decree of creation of the park, and the applicable laws).
- The selected workplan involves the development of all remaining activities in a single workshop, which will be developed as a whole-morning session on November 8th. The first part will be focused on the diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing. It will continue with a second part focused on co-defining a possible LACAP structure, contents and funding resources.
- The composition of the local network for the remaining activities may change, due to the reasons already mentioned.
- It was not possible to circulate the authorization form to appear in the AELCLIC webpage during the meeting of the Natural Park Governing Board. This task will be done during the following workshop.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The existing local network responsible of authorizing the entry of the Parc Natural de l'Alt Pirineu in the AELCLIC Project, and therefore activating the Pilot Landscape, was the Governing Board of the Natural Park / **DECISIONS:** The Governing Board decided that the Natural Park should take part in the AELCLIC Project, and chose one of the proposed workplans. The AELCLIC Pilot Landscape of the Parc Natural de l'Alt Pirineu was therefore successfully activated.
- The remaining activities will take place in a single session. The first part will be focused on the diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing. It will continue with a second part focused on co-defining a possible LACAP structure, contents and funding resources. / **ACTIONS:** Universitat Politècnica de València will define an agenda for the session which allows to develop all remaining activities in a single session.
- The composition of the local network might change for the development of the remaining activities, since the Governing Board won't meet again until next year. / **ACTIONS:** The Natural Park Director, based on inputs by the UPV, will invite for the following workshop a local network more suited to the objectives of the activity, including private sector representatives (tourism and other leisure activities) and local specialists with a high level of knowledge regarding the area, the activities that take place there, and relevant local issues.
- It was decided that the activities which have been included in other landscapes in the Workshops 2 and 3 would take place in a single session on November 8th. However, the Natural Park Director realized later that he was not available in that date. Given that his presence in the Workshop was essential, UPV proposed some alternative options. It was finally chosen by the Natural Park Director that the Workshop would take place in October 31st. / **ACTIONS:** Universitat Politècnica de València, under the supervision of the Natural Park Direction, will organize the activities needed to achieve the expected goals in a single session. The following Workshop will take place in the morning of October 31st. The logistics of the session will be under responsibility of the Natural Park Director.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (minimum) to 5 (maximum)):**
 - o OUTCOME 1 (Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 2 (Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with AELCLIC Workshops). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o Although it was known beforehand, and therefore can't be strictly considered as shortcoming or barriers, the inclusion of the Alt Pirineu Natural Park landscape in the AELCLIC project required the previous approval by the Governing Body of the Natural Park. Since the next meeting was scheduled on October 4th, and the only activities which could be developed during such meeting were the activation of the pilot landscape and the definition of the workplan, the development of the remaining activities will suffer a serious delay with regards to other landscapes or the initial AELCLIC schedule. Therefore, it was decided that the remaining activities will be developed in a single session.
 - o The local network responsible of the activation of the pilot landscape will necessarily suffer some changes since the Governing Board won't meet again until next year. This was seen as an opportunity to include other important stakeholders, such as representatives from the private or research sectors.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Interest and readiness to proceed shown by the Natural Park Direction, in order to approve the inclusion of the AELCLIC Project in the agenda for the Natural Park Governing Board meeting.
 - o Favourable reception and positive reaction by the Natural Park Governing Body, which led to the approval of the participation of the Natural Park in the AELCLIC Project.
 - o Clear definition of the expected outcomes
 - o Good time planning and subsequent adjustment to the schedule
 - o Good preparation of materials and presentations by UPV, which convinced the Governing Board of the interest to take part in the AELCLIC project.
 - o Collaboration from the Universitat de Lleida and Centre de la Propietat Forestal, which facilitated and mediated the initial contacts with the Natural Park Direction.
- **Learnt lessons and recommendations for similar activities in other places:**
 - o The information presented needs to be correctly adjusted to the local characteristics and synthesised to the target audience in order to improve the chances of approval by a Governing Body such as the one in the Natural Park.
- **Learnt lessons and recommendations for future activities in the same place:**
 - o Good choice of activities and time schedule in order to be able to develop all the remaining tasks in the pilot landscape in a single session.
- **Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity:**
 - o High Influence. The pilot landscape is a Natural Park, with a wide diversity of landscape values and resources, whose management and protection are key for the development of many linked activities. The governance regime of the area is also highly specific

ACTIVITY: Workshop1_SERRES D'ANCOSA_PILOT LANDSCAPE

DATE and TIME: 8.10.2019, 09:15-14:30

PLACE: Orpí (Spain), Can Morei

ORGANIZERS:

- Teresa Cervera / Centre de la Propietat Forestal
- Cristina Vega / Universitat de Lleida
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Yolanda Ruiz / Ajuntament Miralles
- Pere Argelich / Ajuntament Miralles
- Marta Salamé / Consell Comarcal Alt Penedès
- Nuria Ruiz / Diputació de Barcelona
- Pol Bacardit / Diputació de Barcelona
- Silvia Escolano / Diputació de Barcelona
- Helena Perxacs / Diputació de Barcelona
- Gabriel Borràs / Oficina Catalana del Canvi Climàtic
- Iñaki Gili / Oficina Catalana del Canvi Climàtic
- Teresa Cervera / Centre de la Propietat Forestal
- Joaquim Garcia / Centre de la Propietat Forestal
- Teresa Baiges / Centre de la Propietat Forestal
- Juan Luis Abian / Centre de la Propietat Forestal
- Antoni Munné / Agència Catalana de l'Aigua
- Francesc Farré / Consorci per al desenvolupament de la Catalunya Central
- Cristina Vega / Universitat de Lleida
- Pere Casals / Centre de Ciència i Tecnologia Forestal de Catalunya
- Santiago Cerdà / Cal Viaella
- Simó Serra / Bosquerols SCCL
- Mónica Prieto / AirBnB
- Rosa María García / Masia Sopera
- Agustí Pelfort / EDUVIC
- David Vivet / Unió de Pagesos
- Joan Mas / Unió de Pagesos
- Lluís Vich / Associació de propietaris forestals Serralada Prelitoral Penedès
- Agustí Guilamany / Associació de propietaris forestals Serralada Prelitoral Penedès
- Jaume Olivella / Associació de propietaris forestals Serra Miralles-Orpinell
- Jordi Reixach / Associació de propietaris forestals Serra Miralles-Orpinell

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC.
- Creation of the local network for the Pilot Landscape Serres d'Ancosa.
- Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing.
- Discussing the potential role of the AELCLIC Project in the adaptation of the Serres d'Ancosa landscape to Climate Change.
- Defining a potential work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop.

AGENDA:

1. Welcome and presentation.
2. Past and future climate in inland Catalonia
3. Water resources in Catalonia. State of the Carme-Capellades aquifer
4. Forest fire prevention and carbon emission reductions
5. Multifunctional forest management and carbon credit markets
- Coffee break*
6. Adaptation actions in the *Alt Penedès* area. Results of the LIFE CLINOMICS project.
7. The AELCLIC project (Adaptation of European Landscapes to Climate Change).
8. Workshop presentation and organization. Presentation of participants.
9. TEAMWORK
 - a. TASK 1: Identification of the Serres d'Ancosa landscape unit core values.
 - b. TASK 2: Identification of climate change effects on the Serres d'Ancosa landscape.
 - c. TASK 3: Brainstorming about possible solutions to the identified effects and barriers.
 - d. TASK 4: Identification of the potential role of the AELCLIC Project in the adaptation of the Serres d'Ancosa landscape to Climate Change
10. Agenda and workplan proposal.

1. WELCOME

- Welcoming words by Teresa Cervera (Centre de la Propietat Forestal)

2. PAST AND FUTURE CLIMATE IN INLAND CATALONIA

- Gabriel Borràs (Oficina Catalana d'Adaptación al Canvi Climàtic) presents past and future climate data in inland Catalonia, some of which come from the LIFE MEDACC project.

CONCLUSIONS:

- Significant changes in temperature and evapotranspiration have been recorded in Catalonia between 1950 and 2018
- Water resource management systems are becoming increasingly vulnerable, not only because of climate change but also because of land use change
- Regionalized climate change projections for Catalonia were developed in the frame of the Third Report on Climate Change in Catalonia.
- Future water availability scenarios for the inner water catchments in Catalonia have been modelled based on hydrological, climate and land use change models.

3. WATER RESOURCES IN CATALONIA. STATE OF THE CARME-CAPELLADES AQUIFER

- Toni Munné (Agència Catalana de l'Aigua) summarizes the studies developed in the area:

CONCLUSIONS:

- The frequency of droughts in Catalonia has been increasing and climate models predict that this trend will go further in the future
- Groundwater assessments (regarding quality and quantity) have been developed under the Water Framework Directive in Catalonia
- There is a significant decreasing trend in the underground water mass under Serres d'Ancosa.
- Several actions are being developed in the area in order to improve the state of the Carme-Capellades aquifer, including coordinated use, protection of the recharge zone and forest management, some of which are included within the LIFE CLIMARK project.

4. FOREST FIRE PREVENTION AND CARBON EMISSION REDUCTIONS

- Cristina Vega (Universitat de Lleida) describes the analysis which are being developed under the LIFE CLIMARK project with regards to forest fire prevention and carbon emission reductions in the Serres d'Ancosa landscape unit:

CONCLUSIONS:

- Carbon stocks are being monitored based on forest inventory and LiDAR derived biomass data
- Carbon loss after severe forest fires can be assessed based on the fire severity and the affected vegetation types
- Conditional burn probability and flame length can be modelled for future scenarios, which makes it possible to calculate the related carbon losses and identify the optimal management points for minimizing carbon emissions. This can be monetized in order to assess potential gross benefits from carbon credits in the area.

5. MULTIFUNCTIONAL FOREST MANAGEMENT AND CARBON CREDIT MARKETS

- Teresa Cervera (Centre de la Propietat Forestal) and Iñaki Gili (Oficina Catalana d'Adaptació al Canvi Climàtic) summarize additional works being done under the LIFE CLIMARK project:

CONCLUSIONS:

- The main objective of the LIFE CLIMARK project is contributing to climate change mitigation by fostering multifunctional forest management and the creation of a local climate credits market
- The LIFE CLIMARK project includes works in 4 selected forest stands in the Serres d'Ancosa landscape unit, where 2 different treatments are being applied
- Multifunctional forest management under the LIFE CLIMARK project aims at increasing water resources and the carbon sequestration rate, maintaining and improving biodiversity, and reducing the vulnerability of forests to large-scale fires.
- Some aspects which are being assessed for the potential design of a local climate credit market (which goes beyond a traditional carbon market) include additionality, temporality, permanence, monitoring and verification. Some topics of interest for the potential credit buyers are also being analysed.

6. ADAPTATION ACTIONS IN THE ALT Penedès AREA. RESULTS OF THE LIFE CLINOMICS PROJECT

- Marta Salamé (Consell Comarcal de l'Alt Penedès) recapitulates some governance and technical studies developed in the Alt Penedès area during the LIFE CLINOMICS project:

CONCLUSIONS:

- 3 Climate Change Adaptation Communities of Work have been created, one of them in the Alt Penedès. They include representatives from the local and regional administrations, other management and participatory bodies, associations from the agricultural sector and other relevant stakeholders
- An action plan for the adaptation of the Alt Penedès to Climate Change was prepared. It organizes around 7 themes and 30 actions. One of those selected themes is "Land planning and landscape management".
- Several pilot actions have been selected by the Alt Penedès Community of Work and are currently being implemented

7. INTRODUCTION TO THE AELCLIC PROJECT

- Francisco Galiana (UPV) summarizes the goals, expected outcomes and structure of the project, as well as the location and reasons for the selection of the potential Serres d'Ancosa Pilot Landscape. The AELCLIC web page is presented.

CONCLUSIONS:

- The AELCLIC project is presented as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of a series of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future project
- The local network is invited to take part in the Project. Their interest will be assessed at the end of the session.

8. WORKSHOP PRESENTATION AND ORGANIZATION.

- Emilio Servera (UPV) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes will be later placed on several flipcharts, divided in several pre-defined areas.
- Repetition of sticky notes with the same or similar texts by different stakeholders was allowed since it would be used as an indicator of the relevance of the topic.
- Climate change adaptation projects and actions already taking place in the area were summarized by the UPV. Several options in which the AELCLIC project could complement them and contribute to the adaptation of the Serres d'Ancosa landscape to climate change were presented. These included focusing on the agricultural sector, the integration of adaptation to climate change into the planning and management of protected areas which are partially included in the unit, or deciding the way in which the results from pilot actions developed by other projects could be mainstreamed across the unit. This was presented in order to provide some background to the discussion regarding the potential role of the project and the decision concerning continuation of the work in the area.

9. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Yolanda Ruiz	LOCAL/REGIONAL AUTHORITY	Ajuntament Miralles
Pere Argelich	LOCAL/REGIONAL AUTHORITY	Ajuntament Miralles
Marta Salamé	LOCAL/REGIONAL AUTHORITY	Consell Comarcal Alt Penedès
Nuria Ruiz	LOCAL/REGIONAL AUTHORITY	Diputació de Barcelona
Pol Bacardit	LOCAL/REGIONAL AUTHORITY	Diputació de Barcelona
Silvia Escolano	LOCAL/REGIONAL AUTHORITY	Diputació de Barcelona
Helena Perxacs	LOCAL/REGIONAL AUTHORITY	Diputació de Barcelona
Gabriel Borràs	LOCAL/REGIONAL AUTHORITY	Oficina Catalana del Canvi Climàtic
Iñaki Gili	LOCAL/REGIONAL AUTHORITY	Oficina Catalana del Canvi Climàtic
Teresa Cervera	PUBLIC SECTOR	Centre de la Propietat Forestal
Joaquim Garcia	PUBLIC SECTOR	Centre de la Propietat Forestal
Teresa Baiges	PUBLIC SECTOR	Centre de la Propietat Forestal
Juan Luis Abian	PUBLIC SECTOR	Centre de la Propietat Forestal
Antoni Munné	PUBLIC SECTOR	Agència Catalana de l'Aigua
Francesc Farré	PUBLIC SECTOR	Consorci per al desenvolupament de la Catalunya Central
Cristina Vega	RESEARCH	Universitat de Lleida
Pere Casals	RESEARCH	Centre de Ciència i Tecnologia Forestal de Catalunya
Santiago Cerdà	PRIVATE SECTOR	Cal Viaella
Simó Serra	PRIVATE SECTOR	Bosquerols SCCL
Mónica Prieto	PRIVATE SECTOR	AirBnB
Rosa María García	PRIVATE SECTOR	Masia Sapera
Agustí Pelfort	SOCIETAL ORGANIZATION	EDUVIC
David Vivet	SOCIETAL ORGANIZATION	Unió de Pagesos
Joan Mas	SOCIETAL ORGANIZATION	Unió de Pagesos
Lluís Vich	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serralada Prelitoral Penedès
Agustí Guilamany	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serralada Prelitoral Penedès
Jaume Olivella	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serra Miralles-Orpinell
Jordi Reixach	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serra Miralles-Orpinell

CONCLUSIONS:

- The local network was established by the Centre de la Propietat Forestal (an organism which depends on the regional Agriculture Department, and whose mission is to promote planning and management of privately owned forests in Catalonia). They have close links with many stakeholders in the area, including not only owners of private forests, but also other kinds of actors, since they are currently working in the area under the LIFE CLIMARK project, which has already established a Local Participation Group. Some inputs and examples were provided by the UPV.
- The constituted local network in Serres d'Ancosa was very rich, diverse and knowledgeable. It had representatives from every major group of stakeholders in the area, thanks to the work being done in the area by the Centre de la Propietat Forestal and Universitat de Lleida, and the presence of members from the Advisory Committee of Experts of the LIFE CLIMARK project.
- Remote participation was not promoted given the success of the meeting.

10. TEAMWORK

• Task 1: Which are the values that better represent the Serres d'Ancosa landscape unit?

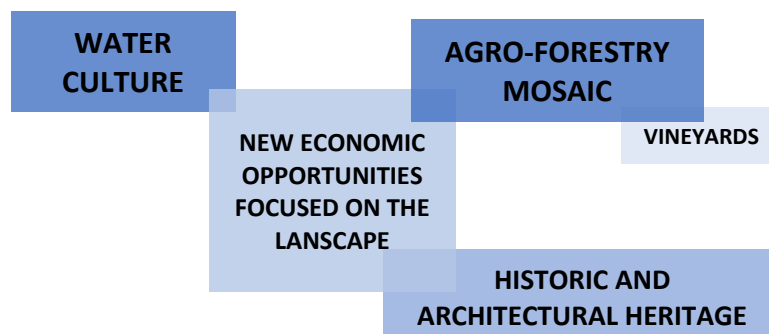
○ ENVIRONMENTAL

- Low human pressure
- Forest owners association which is established and active
- Lime quarry
- Geological structure
- Riera Carme
- Area of aquifer recharge Riera Carme
- Water
- Water culture
- Groundwater
- Riera de Carme
- Water mills
- Good quality forest site. Pinus halepensis and high resilience
- Environmental
- Environmental
- Environmental
- Environmental
- 4 Agroforestry mosaic (vineyard-forest)
- Biodiversity

○ CULTURAL

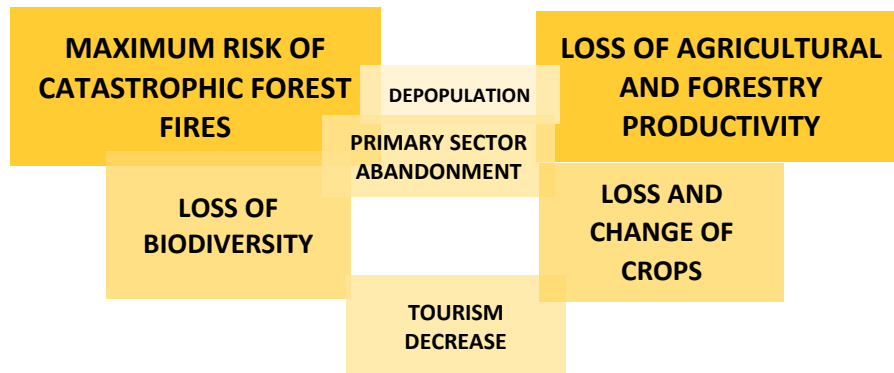
- Diversity
- Active heritage. Human: ovens, lime vineyard
- High voltage powerlines are negative
- Cultural-landscape
- Cal Vidella Waterfalls (Riera)
- Heritage of our old and recent past: castles, farmer dwellings (barracas), dry stone walls
- Castles. Dry stone structures
- Mediterranean agricultural landscape. Cereal-vineyard forest
- Historic heritage (Romanic)
- Rural architecture
- Mosaic, Castles, apiculture, forest
- Agroforest mosaic
- Agroforest mosaic
- River pools

- Large green area located close to Igualada and Barcelona
- **SOCIAL**
 - Pre-coastal - Central Catalonia- South Catalonia
 - Low frequentation -> exclusiveness
 - Low population density
 - Calm - rest
 - Enjoyment in natural environment
 - Proximity to Metropolitan area
 - Attachment to land, mainly water
 - Forest owners association which is stablished and active
 - Social
- **ECONOMIC**
 - Vineyard
 - Economic
 - Economic
 - Sustainable tourism
 - Rural tourism
 - When it is well structured
 - Agroforest mosaic
 - Vineyard
 - Agroforest mosaic
- **OTHER**
 - Potential for economic activities focused on landscape
 - Vineyard
 - Agroforest mosaic



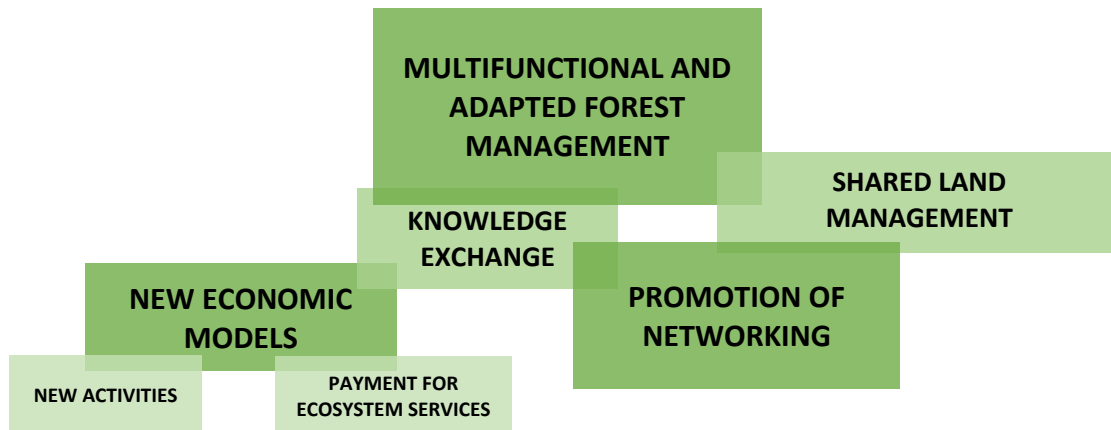
- **Task 2: Which are the Climate Change effects on Serres d'Ancosa?**
 - **TEMPERATURE**
 - Higher need of water by increased evapotranspiration
 - Trees hydric stress. Pests
 - Desertification
 - Plant mortality increase due to drought
 - Fires
 - Change of species. Pests increase
 - Loss of harvest
 - Temperature increase, evapotranspiration and low yields result in abandonment of agricultural land
 - Increase of pests
 - Abandonment of agricultural land

- Change of land use and crops
- Decrease of number of crops. Pests.
- RAINFALL
 - Loss of harvests
 - Loss of agriculture and forestry
 - Increase of pests
 - Increase of forest fires
 - Increase of irrigated crops
 - Shorter but more intensive
 - Due to decrease of rainfall – standstill of tree strata growth
 - Erosion
 - Riera risk of disappearance
 - Loss of biodiversity in Riera
 - Low biodiversity due to drought or drop in rivers flow
 - Change in forestry diversity
 - Decrease in the quantity and quality of water
 - Drought and water decrease in aquifers
 - More irregulars, long droughts, less water available
 - Forest vulnerability to pests due to strength decrease
 - Less water available for the environment and society. Less ecosystem services
 - Increase of shrub land surface (temperature + rainfall)
- FLOOD RISK
 - Decrease of the water table
 - Effects on urbanism and heritage downstream
- FIRE RISK
 - Increase of fire risk
 - More fires
 - Highest risk. Devastating fire
 - Forest fire: carbon emissions. Temporal loss of biodiversity, less tourism
 - To lose the main point of the land which is landscape
 - Affects economic resources
 - Increase forest management
 - Increase of forest fire risk. Scarce forest management
 - Increase of fire risk. Economic impact
 - Economic + environmental
- OTHER
 - Forest pests (temperature+rainfall+other variables)
 - Depopulation
 - Abandonment of agro-forestry activity
 - Disappearance of the primary sector
 - Economic
 - Increase of frequentation (public use)
 - Promote rural tourism
 - Loss of touristic attractive
 - Less tourism
 - Emergence of exotic species (plants/animals) (temperature+ rainfall variables)
 - Replace forest species (temperature+ rainfall variables)
 - Fires<-> rainfall. Increase of fuel capacity because of lack of economic value of the product.



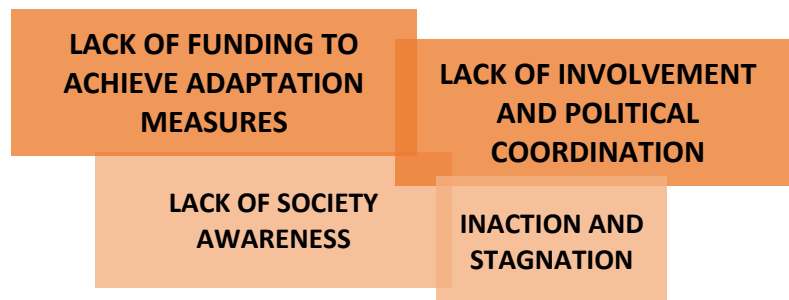
- **Task 3a: Which are the potential answers to the identified Climate Change effects?**
 - **TEMPERATURE**
 - Use of alternative energy (biomass, solar)
 - **RAINFALL**
 - Forest management. Reduction of trees
 - **FLOOD RISK**
 - Change of practices applied to forest, crops and water management
 - **FIRE RISK**
 - Existence of owner association
 - 25% forest surface under a plan
 - Strategies for forest fires: identified and delineated
 - Multifunctional forest management
 - Increase of forest management and changes in forest mosaic
 - Improve assessment of fire risks in landscape
 - Restoration of dry stone walls
 - Change in energy habits. Be aware that firewood is heat and rural management and development
 - Take profit of landscape
 - Learning
 - Adapted forest management. Introduction to south origin
 - Make climate credit active-forest reinvestment
 - **OTHER**
 - Interest in land
 - Payment for ecosystem services - climate credit
 - Enlarge agroforestry assurance
 - Promote local economy
 - Promote cooperatives or agroforestry associations
 - Identification of services and payment for services
 - Incorporate population to land with the aid of proper policies
 - More aid to primary sector taking into account profitability of each exploitation
 - Economic valuation of ecosystem services
 - New economic model for young people
 - New economic activities
 - It is an opportunity to think about the land and understand it?
 - Creation of a knowledge network (share objectives)
 - Address economy to sustainable resources e.g. Solar energy
 - Promote agroforestry mosaic + work-> - depopulation
 - New crop techniques. Species improvement.

- Promote proximity products (honey, cheese, meat)
- Payment for ecosystem services



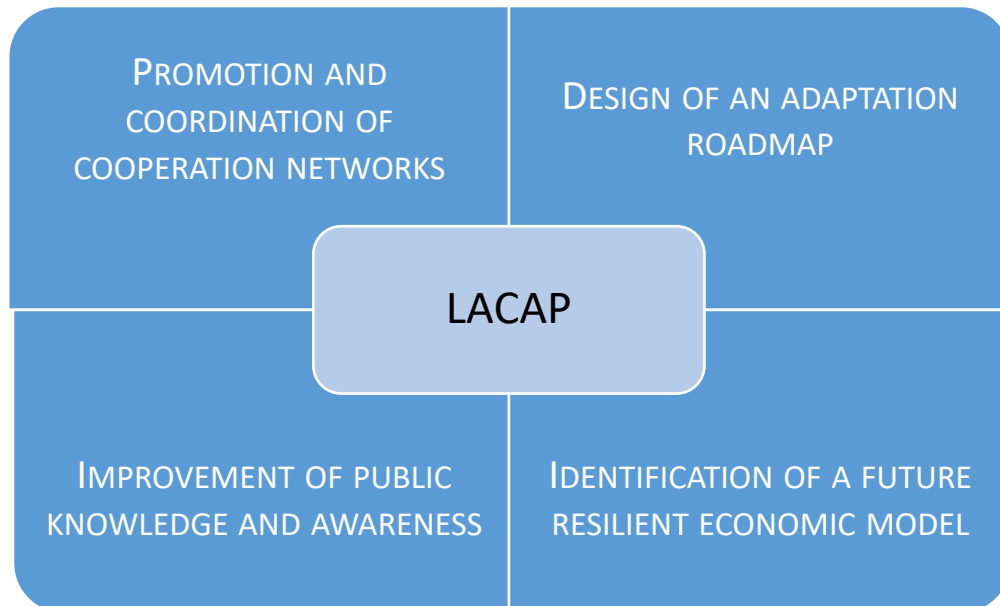
- **Task 3b: Which are the threats or weaknesses which could prevent the implementation of those opportunities for resolution?**
 - TEMPERATURE
 - RAINFALL
 - FLOOD RISK
 - FIRE RISK
 - Lack of investment
 - Lack of forest management due to lack of funding
 - Depopulation-unemployment
 - Land abandonment
 - Negation
 - Regeneration problems. More differentiated systems of regeneration
 - Stricter regime for fires. Larger campaign to prevent fires
 - No action
 - Financial
 - Social commitment
 - Difficult to go from planning to action (lack of € and politic and citizen willingness)
 - Difficulties of economic profitability to change farming practices and forest management
 - Lack of awareness (society and politics)
 - Lack of accuracy in the application of solutions
 - Tiredness of people
 - Need to agree a homogeneous methodology for all us.
 - Payment of ecosystem services
 - Public authorities in terms of bureaucracy and different points of view of departments
 - OTHER
 - Too many sanitary rules
 - Mainly urban society. Disconnection with land
 - Short term thinking
 - Inertia; aversion to change; stagnation
 - Catastrophism

- No government: lack of coordination
- Particular approach not global approach of the problem
- Too much bureaucracy
- No clear or contradictory policies
- Ignore interaction among society, economy and environment
- Lack of funding
- Law limitations
- Lack of fiscal incentives
- Disconnection of urban dwellers with rural world
- Legislative barriers UE, national, regional and local level (urbanism)



- **Task 4: How could the AELCLIC Project contribute towards the adaptation of the Serres d'Ancosa landscape to Climate Change?**
 - Joint adaptation. Overall view. Water – agriculture – forest → economic model
 - Future economic model
 - Economic resilience of agroforestry activities/entities
 - Dissemination. Conclusions. (+ Marketing)
 - Yes: it's a dynamic project
 - Yes: it's more practical than theoretical
 - Yes: experience
 - To balance study and action
 - + public-private partnership
 - Promotion of the cooperative movement
 - To adapt the global climate change view and deliver tools to the local world
 - To take climate change to the population (bring the problems and the solutions)
 - To create discontinuities in the land, restoring vineyards. Study of potential zones.
 - To set lines of action in a plan allowing prioritization ("roadmap")
 - Design of the structure and mechanisms to promote the adaption of the landscape unit
 - In a positive way
 - It can help to bring adaptation to the area (promotion of innovation and already existing projects)
 - Innovation in agroforestry management
 - Creation of a realistic workplan with funding schemes
 - Access to a bigger knowledge
 - Access to funding
 - To promote the analysis of problems
 - Creation of a net and trust between stakeholders
 - Essential: coordination of local group.

- Clustering existing projects and creation of nets
- Citizen attachment and involvement through the use of “landscape” as a basis
- Integration and mainstreaming sectors across the landscape unit
- To improve public awareness
- Finding a mechanism to give value to the landscape as a key element of the good life



11. AGENDA, WORKPLAN AND CLOSURE

- Francisco Galiana (UPV) thanks the participants for their contributions and summarizes the obtained results. A potential workplan is presented and approved. The session ends with a catered lunch for every participant.

CONCLUSIONS:

- Participants are asked if they wish to continue working in the project during 2019. They are suggested to take into account the results of the last group task, in order to make their decision. Given the tight schedule of workshops in the WP4 (this was the last Workshop 1 developed), only 1 possible date is available (October 29th).
- The local network expresses their interest in continuing work within the AELCLIC project. Workshop 2 would take place in October 29th.
- Participants in the workshop were not asked to authorize the inclusion of their organizations in the AELCLIC webpage. Given the accumulated delay, and considering that it wasn't until the last moment that the workplan was approved, there wasn't time to circulate the authorization form before lunch. It was decided to perform that task during the second workshop.
- A catered lunch was served at the same premises where the workshop took place to end the session.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The workshop was conceived as a joint, networking action between the LIFE CLIMARK and AELCLIC projects. The agreement initially included only the development of this first workshop. It was decided that it would be up to the local network to decide if they wanted to continue working within the AELCLIC project (with another workshop during 2019), based on the experience of this first joint workshop. / **DECISIONS: The local network decided to continue working within the AELCLIC project with a 2nd Workshop**
- The organization of the Workshop by the Centre de la Propietat Forestal was excellent. Contacts with local stakeholders and other participants from the LIFE CLIMARK Advisory Committee of Experts started more than 2 months in advance. There were constant contacts with the UPV and Universitat de Lleida during the organizational phase in order to agree a program for the session. The UPV was also informed at different points as the list of confirmed attendants was being filled. The Workshop took place in excellent facilities in the pilot landscape ("Can Morei" country house), whose owner was highly collaborative and participative during the event. The Centre de la Propietat Forestal also organized and sponsored the catering service for the coffee break and lunch. / **ACTIONS: Centre de la Propietat Forestal will take a similar role regarding the 2nd Workshop**
- The constituted Serres d'Ancosa local network is very comprehensive and knowledgeable. Since it was based on existing networks already linked to the Centre de la Propietat Forestal and the Universitat de Lleida through the LIFE CLIMARK project, the forestry sector was predominant. / **ACTIONS: Centre de la Propietat Forestal will invite additional stakeholders from other sectors to the Workshop 2, in order to achieve a broader perspective.**
- The presentations during the first part of the workshop were excellent. Developing the workshop as a joint action with the LIFE CLIMARK project made it possible to count on several highly qualified specialists which are part of its Advisory Committee of Experts. / **ACTIONS: UPV will consider all the information provided in order to integrate it into the presentations in the Workshop 2. The agenda for that Workshop will be agreed with the Centre de la Propietat Forestal, aiming at counting on the presence of experts from other fields who would hopefully be able to approach the adaptation of Serres d'Ancosa to climate change with different complementary perspectives.**
- Water and the agro-forestry mosaic were at the center of the wide variety of landscape values identified by the stakeholders. The rich cultural and architectural heritage of the landscape unit was also highlighted. Interestingly, all these values were also considered as the potential basis for the development of new economic opportunities based on the landscape. / **ACTIONS: Centre de la Propietat Forestal will try to involve in the workshop 2 some new stakeholders and experts with different interests and perspectives in order to enrich the discussions regarding economic activities different than forestry that are taking place in the area. UPV will consider all the information provided in order to integrate it into the presentations in the Workshop 2.**
- The main potential climate change impacts identified focused on the risk of devastating wildfires and the negative effects on agricultural and forest productivity. Links to how this could affect other activities in the area such as rural tourism were highlighted, focusing the discussion on the potential negative impacts on the area economy, and the subsequent risk of depopulation/ **ACTIONS: Universitat Politècnica**

de València will address the opportunities to address the main identified impacts from a planning perspective within Workshop 2

- The identification of potential answers to climate change impacts in the landscape unit focused almost exclusively on fire risk and other related topics. Multifunctional forest management was considered a key answer to climate change in the pilot landscape, based probably on the inputs received during the presentations in the first half of the session. Other opportunities include the promotion of networking and the development of new economic models. / **ACTIONS:** Universitat Politècnica de València will address the opportunities to integrate the identified answers from a planning perspective during Workshop 2.
- The lack of funding and political coordination and involvement were considered the main barriers in order to advance towards the potential answers to climate change identified in the landscape unit. / **ACTIONS:** UPV will consider all the information provided in order to integrate it into the presentations in the Workshop 2.
- The stakeholders identified several ways in which the AELCLIC project could contribute to the adaptation of Serres d'Ancosa landscape to climate change, such as the design of an adaptation roadmap for the landscape unit or the promotion and coordination of cooperation networks. They considered the project as positive for the area and were clearly in favour of the continuation of the project work during 2019 and potentially beyond. / **ACTIONS:** Centre de la Propietat Forestal and UPV will continue working together in the frame of the AELCLIC project during 2019.
- The LIFE CLIMARK project uploaded the materials of the workshop to their webpage (<https://lifeclimark.eu/es/comunicacio/articulos-i-comunicacions/>) and announced it via social media (<https://twitter.com/lifeclimark/status/1184367278751670272?s=20>). The Centre de la Propietat Forestal twitter account also reported the workshop (<https://twitter.com/cpforestal/status/1181896930634473472?s=20>) / **ACTIONS:** Universitat Politècnica de València will circulate the announcements and include them in further reports regarding the societal impact of the project.
- WORKSHOP2: Was initially scheduled during the workshop 1 in the only available date in that moment (October 29th). However, at a later stage, and for unexpected reasons outside the UPV's control, it was needed to change the established date of a Workshop from a different pilot landscape. This opened three new possible dates for the development of Workshop 2 in Serres d'Ancosa, which were then offered by the UPV to the Centre de la Propietat Forestal (in addition to maintaining the initially established one) in order to increase the available time for planning and organizing the second Workshop. / **ACTIONS:** Centre de la Propietat Forestal decided to delay the workshop until one of the newly offered dates. Workshop 2 would finally take place on November 8th.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Launch of the AELCLIC Pathfinder initiative within EIT-Climate-KIC). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 2 (Creation of the local network for the Pilot Landscape Serres d'Ancosa). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 3 (Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 4 (Identification of the potential role of the AELCLIC Project in the adaptation of the Serres d'Ancosa landscape to Climate Change). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 5 (Defining a work agenda towards a Landscape Adaptation Plan to Climate Change with a second AELCLIC Workshop). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o The session was perhaps a little bit too long. The delay in the programme at the beginning of the teamwork part of the session was over an hour, which made it challenging to develop every planned task for that part of the workshop.
 - o Some of the results of the activities developed as part of the teamwork were very focused on fire risk, due to the composition of the network.
 - o Due to the lack of time, among other reasons, it was not possible to confirm the interest of the stakeholders in being present in the AELCLIC webpage. This task was postponed to Workshop 2.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o The workshop benefitted from the existing local network and advisory committee of experts set up by the LIFE CLIMARK project. It would have been impossible to assemble a network like this without joining forces with an already established and very strong project.
 - o Excellent work by the Centre de la Propietat Forestal in setting up the local network, inviting them to take part in the workshop (in some cases, more than 2 months in advance), and every other organizational task.
 - o Cooperation and help from the Universitat de Lleida in establishing the initial contacts with the Centre de la Propietat Forestal, setting the program for the session, and presenting their work in the LIFE CLIMARK project.
 - o Great presentations by the invited experts during the first half of the session.
 - o Highly participative and knowledgeable stakeholders. Very high level of expertise and interest on the matter, which led to a fruitful discussion during the teamwork.
 - o Good preparation of materials by UPV. Ability to make the AELCLIC project compelling to the local network in order to agree a workplan for the rest of the year.
 - o Ability shown by the UPV to adapt the teamwork and stimulate the involvement of the assistants in order to complete every planned activity despite the shortened available time (due to the delay in the presentations of the first part of the session).
 - o Clear definition of the expected outcomes
 - o Very useful reference materials from other AELCLIC workshops
 - o Excellent facilities and support by the owner.
- **Learnt lessons and recommendations for similar activities in other places:**
 - o Working with local counterparts with the experience, knowledge and resources needed to take the lead and excel in the organization of this kind of activity maximizes the success and return of the workshop

- Invitations to the workshop were sent in some cases more than 2 months in advance of the date. The high level of attendance achieved was possible only because the organizational tasks started with such a wide time range prior to the event and there was already a very strong network due to previous work in the area by the Centre de la Propietat Forestal and Universitat de Lleida.
- Knowing beforehand the attendance list allowed for preparing and presenting materials suited to the level and interests of the audience.
- The workshop planned duration (5 hours) is considered excessive for this kind of activity, and led to an important decrease in the available time for the development of the teamwork.
- **Learnt lessons and recommendations for future activities in the same place:**
 - See previous section.
- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - High. As already mentioned, the forestry sector was predominant in the network, and therefore, the results from some of the teamwork activities were strongly focused on forestry issues such as the wildfire risk.



WP5

South Eastern Europe



ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: May 16, 2019 - from 2 p.m. to 6 p.m.

PLACE: Fondazione Innovazione Urbana, Piazza Maggiore 6, Bologna

ORGANIZERS: University of Bologna, Municipality of Bologna and Fondazione Innovazione Urbana

PARTICIPANTS:

Organizers

- University of Bologna: Daniele Torreggiani, Patrizia Tassinari, Anna Costa, Giulia Gatta
- Municipality of Bologna: Giovanni Fini

Fondazione Innovazione Urbana: Valeria Barbi, Federico Salvarani, Simona Beolchi, Andrea Massimo Murari

Stakeholders who accepted to join the network of stakeholders:

- Giuseppe De Togni, Comune di Bologna
- Julia Colver, Nomisma
- Marco Spinedi: Interporto Bologna
- Marco Caliceti: Confagricoltura Bologna
- Claudio Cervellati, Confagricoltura Bologna ed Emilia Romagna
- Marco Alberghini UGC Cisl Area Metropolitana Bolognese
- Michele Solmi: Consorzio Bonifica Renana
- Andrea Morsolin: Consorzio Bonifica Renana
- Stefano Savini: Emilbanca
- Silvia Bergami: EmilBanca
- Marco Odaldi: AESS (Agenzia Energia e Sviluppo Sostenibile) Modena
- Patrizia Preti: Orti di Via Salgari, ANCESCAO
- Andrea Bruini: Granarolo Group
- Lucia Fresa: Agenzia del Pilastro
- Francesco Palmieri: Bologna Welcome
- Carmine Preziosi: ANCE Bologna (Collegio Costruttori Edili)
- Chloy Vlamidis, Agenzia di Sviluppo Pilastro

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- Fondazione FICO
- CAAB
- Orogel
- Inalca
- Coldiretti Bologna
- Quartiere San Donato - San Vitale
- Agenzia del Pilastro

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This workshop, co-organized by University of Bologna, Municipality of Bologna and Fondazione Innovazione Urbana, is the first workshop organized in the “north-eastern fringe areas of Bologna”, selected as one of the 16 pilot landscapes where the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this first workshop aims at involving local stakeholders connected, at different



levels, with the pilot area, to present them the project, allow them to co-identify the impacts of climate change on the local landscape, and co-identify opportunities for the future definition of a Landscape Adaptation Plan to Climate Change.

The workshop, to whom participated 23 persons, representatives of the local stakeholder's ecosystem and the event organizers, has been hosted at the headquarters of Fondazione Innovazione Urbana, whose staff provided specialized support aimed to facilitate the participatory process.

The main objectives of the workshop could be summarized as follows:

- Explain and describe the project to the local stakeholders ecosystem;
- Ease the contact and the networking between the stakeholders and with the project's partners;
- Evaluate the interest of the stakeholders in the project, be they related or connected to inhabitants, businesses or institutions of the pilot area, or operating at a broader scale including the pilot area or parts of it, or even related to other areas where organizations showed an interest in exploring the opportunities of adding satellite pilot areas to be connected to the core pilot area already identified;
- Explore their knowledge and awareness about climate change issues, and carry out a co-identified diagnosis of climate change impacts they know or perceive in the pilot area;
- Evaluate their interest in collaborating in the project and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Explore the opportunities and collect input on their potential involvement and contribution related to a future project for the definition of a Landscape Adaptation Plan to Climate Change, also in relation to the opportunity to apply for a follow-up EU project after this pathfinder (e.g. Climate KIC Demonstrator call for proposals).

All the stakeholders invited to the discussion declared their interests in collaborating, with different modalities and different instruments, to the projects. They also accepted to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

2 – 3 p.m. Welcoming speech and general thanks

- Valeria Barbi – Fondazione Innovazione Urbana: welcoming of the participants, presentation of the Foundation for Urban innovation and description of the afternoon's agenda.
- Daniele Torreggiani – professor of the Department of Agricultural and Food Sciences of the University of Bologna: description of the AELCLIC project, work-plan and activities in the pilot area; main climate change impacts in the region;
- Giovanni Fini – Municipality of Bologna: description of the pilot area; summary of previous projects in the region, with particular reference to the BlueAp project, allowing the City of Bologna to create and implement the Bologna Local Climate Change Adaptation Plan; outline of spatial planning and planned developments in the area, transition to new PUG.
- The participants briefly introduce themselves.

3 – 4.30 p.m. Group Work on climate change impacts diagnosis

Participants work on the diagnosis of critical issues and impacts related to climate change, describing the already tangible and predictable consequences they notice or experience in the pilot area. Impacts are visualized and mapped in real time.



4.30 - 4.45 p.m. Coffee break

4.45 - 6.00 p.m. Summary of the impacts identified and focus group about opportunities

Brainstorming about the opportunities and potential contribution related to a future project for the definition of a Landscape Adaptation Plan to Climate Change. Inputs are visualized in real time.

6.00 Closing of the works and networking cocktail

KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

1. Downscaling analysis of climate change impacts: participants have started from an analysis of general and widespread climate change impacts and have then focused on the pilot area.

Discussion:

Identification of the problem:

- What impacts derive from Climate Change?
- Critical issues related to climate change
- Impacts on the local landscape, in terms of life, environment, local productive and economic activities, cultural and natural heritage, wellbeing of inhabitants.

Summary of Results:

The local stakeholders involved at the table proved to participate in the discussion actively intervening and identifying various impact problems caused by climate change. They also proved to be proactive in thinking about the possible contribution they could make to the project for the implementation of the adaptation plan.

The key impacts identified are:

- Drought;
- Extreme events;
- Sudden events;
- Hydrogeological instability;
- Water scarcity;
- Increased temperatures;
- Heat waves.

The key themes identified to focus on within the project are:

→ Maintenance:

- Ordinary maintenance (better knowledge of the territory and landscape): wastewater nets; maintenance of water courses necessary interventions; downstream problem with poor channeling; vegetation;
- Extraordinary maintenance: increase of pumps for tanks; repeated flooding; destruction of trees; over-accumulation of impacts on offices, difficulty in managing utilities consumption;

→ Water Scarcity: water is more and more needed to sustain agriculture and for the industrial uses;



→ Agriculture, industry and other businesses:

- Damages to crops, decrease in yields;
- Increased energy consumption for cooling;
- Access to water;
- Damaged buildings;
- Need to support farms and local businesses for damages caused by climate change (drought, extreme events, etc.);

→ Everyday life: daily issues

- Mobility, need to rethink mobility in the area especially for public services;
- Inadequacy and scarce appeal of slow mobility infrastructures;
- Impermeability or poor permeability of soils;
- Vegetation's key role and issues;
- Lack of thermal comfort and consequent necessity to use of air conditioning;
- Creation of marshes due to the clay soil;
- Flooding (e.g. subway, watershed);
- Car park problem;
- Crossings;
- Discomfort for weaker groups;
- Increasing number of insects and seasonal allergies;

→ Tourism: impact on tourism

- Facilities damaged (cycle tracks, facilities for rural and naturalistic tourism);
- Loss of seasonality;
- Bad smells.

2. Creation of a local ecosystem of stakeholders:

Discussion: the key impacts and critical issues identified by the group work are summarized by the facilitators. Each stakeholder is invited to think about the opportunities and potential contribution (knowledge, skills, activities, etc.) and possible synergies related to a future project for the definition of a Landscape Adaptation Plan to Climate Change.

Summary of Results

Opportunities of the territory

→ From the work group, different opportunities have been identified. They are directly identified with sub-areas, infrastructures or subjects whose involvement in the project could provide desirable adaptation conditions and synergic actions connecting different actors, sectors, land-uses, also in a circular economy perspective. These territorial opportunities are:

- Railway Freight yard S. Donato;
- Arboretum park (area Pilastro);
- Ex Municipal Garden Centre;
- Ortive area (Salgari Street);
- Granarolo wastewater treatment plant.
- Interporto (potential lab of experimentation for wastewater management, nature-based solutions; landscape and vegetation; renewable energy);



→ The main cross-sector and transversal themes which have come out from the work-group are as follows :

- Initiate actions to raise awareness of citizens and neighborhood residents about the need to implement a climate change adaptation projects;
- Create a more mature environmental awareness;
- The possibility of enhancing and rediscovering the biodiversity;
- The possibility of acting directly on the network of public spaces and above all on the soft mobility system to improve the quality of the places;
- The possibility of increasing public green spaces even for thermal regulation purposes;
- Importance of incentives/legislative tools to promote virtuous actions and overcome bottlenecks;
- Importance of connection with spatial and landscape planning tools;
- Potential synergies and networks that may be established among different sites, sectors and actors to enhance social, natural and economic features of the pilot area, while improving its resilience and landscape quality (water resources;
- Mobility and environmental infrastructures, etc.). .

Potential contribution related to a future project for the definition of a Landscape Adaptation Plan to Climate Change

The stakeholders have identified what may be available and the possible synergies between the various participants. The main potential contributions can be summarized as follows:

- Territory Analysis (Data/knowledge);
- Data and knowledge, raising awareness and dissemination in the agricultural world;
- Supply of historical data on crops and irrigation. CAP data;
- Study of impacts on the energy front;
- Community awareness;
- Constructive Support in identifying building and infrastructure solutions to respond to environmental and functional problems;
- Contribute with analysis results/pilot projects on mobility, water, waste;
- Triggering virtuous processes for circular economy;
- Sharing of the experience gained in environmental assessment and certification;
- Networking and involving other actors also for potential regeneration projects;
- promoting internal/external awareness and dissemination through the own business, financial and entrepreneurial network.

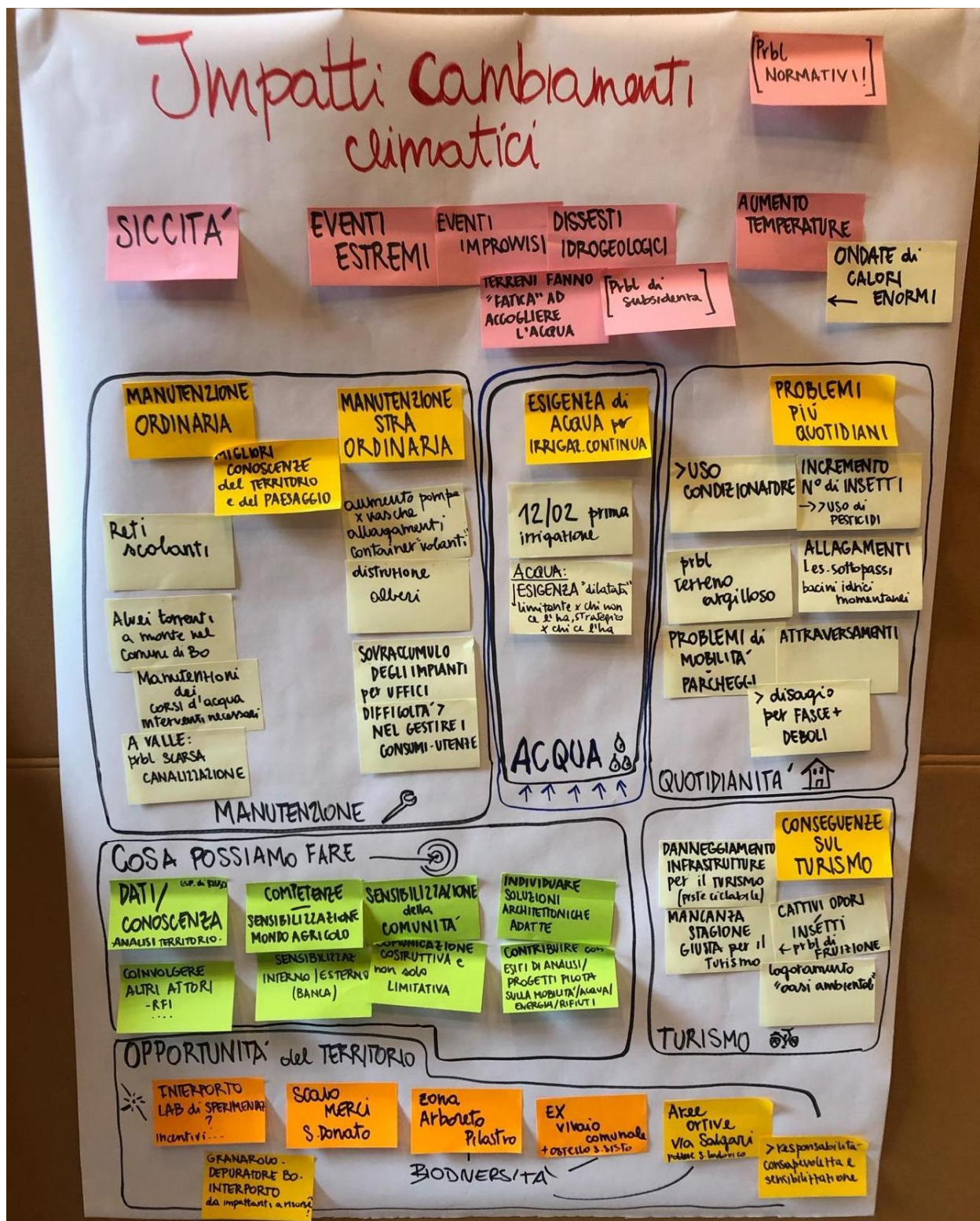
Closure

The organizers thank all the stakeholders for their active participation and recall that the elements that emerged in today's discussion will be the basis for the next workshop, in which possible adaptation solutions and themes/contents for a future plan will be identified, thus laying the basis for the roadmap for the future definition of the plan for the adaptation of the local landscape to climate change will be defined.

Picture(s) of the activity, presentation, raw outputs, etc.









SUMMARY:

- Participants agree in being part of the local network of stakeholders;
- Participants agree in being updated on the project's phases and development;
- Participants agree in being involved in the second workshop to be held on September 18th;
- Participants agree in using their logos on the project official website;
- Participants confirm their interest in being involved in a future project for the definition of the plan;
- Level of Achievement of the expected outcomes: 5 out of 5.
- Main Shortcomings or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- Main Reasons for the successful achievement of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions.
- Learnt lessons and recommendations for similar activities in the same place/other places: stakeholders active in other areas have showed a great interest in sharing their own experience and have highlighted the availability and opportunity to connect other areas to the core area already identified, to benefit from networking at a broader scale. AELCLIC activities on the Bologna pilot landscapes have thus proved effective also in promoting positive impact and possible connections with other sites in the metropolitan area of Bologna.
- Level of influence of the local characteristics (social, geographical, etc) in the development of the activity: 5 out of 5.

Authors of the Report:
Fondazione Innovazione Urbana
University of Bologna



ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: September 18, 2019 - from 3.30 p.m. to 6.30 p.m.

PLACE: Fondazione Innovazione Urbana, Piazza Maggiore 6, Bologna

ORGANIZERS: University of Bologna, Municipality of Bologna and Fondazione Innovazione Urbana

PARTICIPANTS:

Organizers

- University of Bologna: Daniele Torreggiani, Patrizia Tassinari, Ludovica Marinaro, Giulia Gatta
- Municipality of Bologna: Giovanni Fini
- Fondazione Innovazione Urbana: Valeria Barbi, Federico Salvarani, Marta Bertolaso

Stakeholders who accepted to join the network of stakeholders:

- Giuseppe De Togni, Municipality of Bologna
- Julia Colver, Nomisma
- Marco Spinedi: Interporto Bologna
- Marco Caliceti: Confagricoltura Bologna
- Claudio Cervellati, Confagricoltura Bologna ed Emilia Romagna
- Michele Solmi: Consorzio Bonifica Renana
- Silvia Bergami: EmilBanca
- Marco Odaldi: AESS (Agenzia Energia e Sviluppo Sostenibile) Modena
- Andrea Bruini: Granarolo Group
- Mirella Di Stefano: Granarolo Group
- Lucia Fresa: Agenzia del Pilastro
- Chloy Vlamidis, Agenzia di Sviluppo Pilastro

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- Fondazione FICO
- CAAB
- Orogel
- Inalca
- Coldiretti Bologna, Carlo Cavallina
- Quartiere San Donato - San Vitale, Simone Borsari
- Orti Salgari, Patrizia Preti
- Francesco Palmieri: Bologna Welcome
- Carmine Preziosi: ANCE Bologna (Board of Builders)

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This workshop, co-organized by University of Bologna, Municipality of Bologna and Fondazione Innovazione Urbana, is the second one organized in the “north-eastern fringe areas of Bologna”, selected as one of the 16 pilot landscapes where the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this second workshop aims at consolidating the network of the local stakeholders connected, at different levels, with the pilot area. It defines the diagnosis of impacts of the climate change on the pilot area, and co-identifies the possible structure and the contents (themes, goals, solutions, actions and roles) for the future definition of a Landscape Adaptation Plan to Climate Change.



The workshop, attended by 20 persons, representatives of the local stakeholder's ecosystem and the event organizers, has been hosted at the headquarters of Fondazione Innovazione Urbana, whose staff provided specialized support aimed to facilitate the participatory process.

The main objectives of the workshop could be summarized as follows:

- Summarize the results of the first workshop and implement them;
- Evaluate the interest of the stakeholders who were not present at the first workshop, in collaborating in the project and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Consolidate the networking between the stakeholders and with the project's partners;
- Map the perception and awareness of the network about climate change issues, carrying out a co-identified diagnosis of climate change impacts in the pilot area;
- Trigger a landscape centered approach to cope the goals of climate change adaptation starting from a landscape characterization of the pilot area and an overview of projects and programs carried out both locally and internationally.
- Co-define the structure and the contents (in terms of themes, goals, solutions, actions and roles) for the definition of a Landscape Adaptation Plan to Climate Change;
- Discuss about the opportunity to apply for a follow-up EU project after this pathfinder (e.g. Climate KIC Demonstrator call for proposals).

All the stakeholders invited to the discussion declared and confirmed their interest in collaborating, with different modalities and contributions, to the projects. They also accepted to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

3.30 – 3.40 p.m. | Welcoming speech and synthesis of the first workshop's results

- Valeria Barbi – Fondazione Innovazione Urbana: welcoming of the participants and description of the agenda.
- Daniele Torreggiani – professor of the Department of Agricultural and Food Sciences of the University of Bologna: brief summary of the results of the first workshop and description of the objectives of the work to be carried out in the first phase of the workshop.

3.40 – 4.30 p.m. | PHASE 1: Implementing the impact diagnosis: definition of the hierarchy of climate change impacts in the various areas of the pilot area.

- The **first group work** (led by Valeria Barbi and prof. Daniele Torreggiani) involves the use of an online application (Mentimeter) for the simultaneous management of data and the creation of graphs that allow identifying the relevance attributed by the stakeholders to the various impacts of climate change on the different homogeneous areas of the pilot area (see annex 1 to the present document).
- Ludovica Marinaro (University of Bologna) - Illustration of the characterization of the various spatial units of the pilot landscape.
- The **second group work** (led by Valeria Barbi and prof. Daniele Torreggiani) using Mentimeter, is aimed at identifying the relevance attributed by stakeholders to the various impacts of climate change on the various structural landscape units of the pilot area, whose



definition derives from the landscape characterization previously introduced (see annex 1 for the related graphs).

4.30 – 5.30 p.m. PHASE 2 | Suitable adaptation solutions for the pilot area

- Ludovica Marinaro – University of Bologna. Illustration of plans, projects and solutions carried out at local and international level in the climate change's adaptation field, with reference to the main structural units of the pilot landscape.
- **Third group work** carried out on aerial images, aimed at mapping and outlining desirable strategies, solutions, opportunities and projects for adapting the pilot landscape to climate change. The stakeholders are invited to think about the evolution of the landscape starting from the identified structural units. The organizers to define the inputs for the third phase of the workshop systematize the brainstorming of this group work.

5.30 - 6.30 p.m. PHASE 3 | THEMES, OBJECTIVES AND ACTIONS of the plan for the adaptation of the pilot area to climate change and ROLES of the stakeholders

- Brief illustration of the group work for defining the structure and contents of the Plan. A draft version of the structure and contents of the Plan, prepared by the organizers based on the outputs of the first workshop and further implemented in real time using the outputs of the brainstorming sessions of the previous phases of this second workshop, is showed in a large paper format.
- Focus group with all the stakeholders (led by University of Bologna with the support of the Municipality of Bologna and FIU) aimed at:
 - Sharing the structure of the future LACAP;
 - Co-identifying the contents of the various parts of the Plan: THEMES, OBJECTIVES, SOLUTIONS, ACTIONS and ROLES of the stakeholders.

The outputs of the focus group are implemented in the draft structure of the Plan.
- Daniele Torreggiani – University of Bologna. Summary of the results of group work and sharing of the results achieved for the future LACAP.

6.30 Closing of the works and networking cocktail

Daniele Torreggiani – University of Bologna. Closing and general thanks

KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

PHASE 1 | Implementing the impacts diagnosis: Starting from the results of the impact analysis carried out in the first workshop, the stakeholders are asked to verify the number and the level of perceived importance and relevance of the various climate change impacts on the pilot landscape.

The climate change impacts that have been confirmed by the network have been grouped into three main impacts. This result is also consistent with the results of the Climate Change Adaptation Plan of Bologna – BlueAp. The key impacts identified are as follows:

- Drought and water scarcity;
- Extreme events;
- Increased temperatures and heat waves.

After confirming the main perceived impacts on the pilot landscape, the work has been carried out with the help of the Mentimeter app. Each stakeholder has been asked to assess (very low, low,



medium, strong, and very strong) the perceived importance and severity of each CC impact on the main regions of the pilot landscape.

After the illustration of the characterization of the landscape of the pilot area (UniBo), and the identification of its structural units, the stakeholders have then been asked to rate the severity of each CC impact on the various structural units of the pilot landscape (very low, low, medium, strong, and very strong).

Summary of Results:

All the stakeholders have participated actively, contributing to sum up the common perception of the severity of climate change impacts. The results of this focus group are in annex 1 to this report. Temperature increase is perceived as severe problem on average over the entire pilot area, especially on parking areas, on paved areas in general, and on agricultural areas. The consequences of drought are perceived especially on green and cultivated areas, while the effects of heat waves especially on green areas, agricultural areas and pedestrian ways.

PHASE 2 | Suitable adaptation solutions for the pilot area

The first part of this section was aimed at illustrating a selection of projects and programs both at a local and international scale, which can be assumed as reference for the definition of CC adaptation solutions. Examples of projects carried out in the Municipality of Bologna and other European and international contexts have been presented. This is followed by an excursus of the most important, recent and innovative climate adaptation plans implemented in different European and international metropolitan contexts to offer useful examples about possible structures and visions.

Discussion: The work was conducted using aerial images of the pilot area and stickers of 7 different colors (1 for solutions and 6 for actions), to allow the stakeholders to differentiate the Solutions and the different types of actions. UNiBO maps on the areal images the solutions and actions identified in the focus group. To trigger a fruitful discussion the organizers prepared some examples of solutions derived from the results of the first AELCLIC workshop, the analysis of the climate change adaptation plan of Bologna and inspired by the most relevant CC adaptation plans at the international level. Each stakeholder has been invited to think about the suitable solutions and relative actions for the future LACAP.

The solutions and actions identified are as follows:

The opportunity to perform some data analysis and assess the real dimension and evidence of CC impacts on the pilot area and to assess the economic impact of CC. This proposal can be considered a preliminary action for each solution proposed.

One of the solutions should address the improvement of the quality of the built heritage and architecture. It would be useful to consider bioclimatic, traditional and sustainable technologies that can help to improve the energetic efficiency of the built heritage of the pilot area, as for instance some wind towers, green walls, green roofs, etc.

It would be important to provide some solutions integrating the production of energy from renewable sources. The network proposes to integrate photovoltaic panels inside the parking areas and on the roofs of industrial and commercial buildings, balancing these last potential interventions with green roofs (always considering their maintenance costs).

All the stakeholders converge on the proposed solution of creating a **linear system of green areas** including a slow mobility network (bike lanes). In the perspective of increasing the amount of high-



quality green areas, it is important to pay attention to the maintenance costs and tasks. Some green areas of the pilot area, which already represent an attraction in themselves, could be connected and increase their degree of accessibility. In general, the pilot area is already well equipped with gardens, especially the Pilastro neighborhood, hence the supposed interventions must act to better connect the urban tissue with green infrastructure. The design will have to pay specific attention to the choice of plant species able to withstand extreme events in order to reach conditions of continuous safety of users as well as of movable and immovable property.

The stakeholder agree with the necessity and the opportunity to create a solution for the **water management** for the entire pilot area. Water management in fact could be considered as one of the major themes for the pilot area. The solution of creating an interconnected system for the storage, treatment and distribution of rainwater may help in mitigating extreme events and reusing water when/where it becomes a scarce resource. The solution aims at creating a virtuous water cycle in the neighborhood. If the excess of water gives problems to urbanized areas and the lack of water gives problems to green/agricultural areas, close to each other in the pilot area, the LACAP should plan a solution to establish a virtuous connection.

In general, the network agrees to identify solutions related to water storage, which could be performed through systems for micro-accumulation in the rural territory or larger reservoirs, retention basins which could also have a naturalistic value; and through bios wales, raingardens and road-related blue infrastructures in the urban areas. Unused areas may be used for the creation of retention basins.

Industrial water storage and treatment would call for different solutions. The reclamation consortium is working to find water from wastewater treatment plants, especially for agriculture. Therefore, the LACAP may focus on solutions related to water recycling for green areas.

To address drought in agricultural areas, according to the stakeholders it is necessary to combine a reduction in the use of water, accumulation, precision agriculture, and the adoption of draught-resistant cultivars.

One of the other complementary solutions that the LACAP should address concerns **education and communication**. This is necessary not only to provide dissemination of the pilot projects and solutions, but also to increase awareness about climate change effects on the landscape. Platforms, awareness raising campaigns, training about green areas and urban health should be considered.

Summary of Results: The discussion was lively and full of ideas. Each stakeholder has actively contributed to the definition of the solutions and the subsequent definition of many of the information necessary to support their implementation. It clearly emerges the need to establish priorities not only for the plan, but also more generally for the prospects of use and transformation of the pilot area. It is therefore necessary to establish priorities and avoid conflicting actions in the plan, which can therefore inspire the solutions, share a hierarchy of interventions and guide the transformation of the landscape of the pilot area.

PHASE 3 | THEMES, OBJECTIVES AND ACTIONS of the plan for the adaptation of the pilot area to the CC and ROLES of the stakeholders

Discussion:

After a brief explanation of the work for the third phase of the workshop, the organizers illustrate the draft structure of the Plan taking prepared considering the results of the first workshop and previous



brainstorming sessions of this second workshop, and the analysis of examples and models at international level. The structure that is presented constitutes the strategic and design framework for the future creation of the LACAP. It identifies the THEMES; the OBJECTIVES, which can be linked to more than one theme; the SOLUTIONS formulated to face the major impacts of climate change detected in the pilot area, and the ACTIONS needed to implement them, subdivided into 6 types (analysis, diagnosis, project, pilot actions, monitoring and communication). The LACAP structure also contains a section about the roles of the members of the network, to be linked to specific actions. The group shares and confirms the themes identified by the basic structure of the plan.

The discussion then focuses on the part dedicated to solutions and actions to summarize and give concrete expression to the proposals that emerged in the second phase. The network agrees on the solutions of the draft version prepared by the organizers based on the elaboration and development of the previous results, configured as “integrated landscape strategies”. Some additional solutions are discussed and added, as follows:

- A water management solution aimed at creating a closed-cycle water system for the neighborhood.
- The creation of a linear system of green public spaces that include the soft mobility network, improve the climatic comfort of existing roads, connect existing green areas and provide better services for the neighborhood in general. This solution, aimed to give greater impulse to the circular economy, must be calibrated to consider the authorization procedures and regulation-related issues. According to the network, various bottlenecks related to the current legislation system reduce the implementation of innovative projects in the rainwater reuse or renewable energy auto production field at the neighborhood or block level. The LACAP may thus focus on those bottlenecks to facilitate the implementation of adaptation solutions. This task may be included for each solution or may be defined as a specific solution. The actions may facilitate the creation of energy communities with the active involvement of the population.
- The third solution may focus on the built environment, to increase its resilience in terms of energy efficiency and energy production.
- A fourth solution may focus on education and communication about climate change effects on landscapes. This solution would include information campaigns, training courses, open construction sites and concrete demonstration actions of adaptation projects as well as the effects of climate change.

Summary of Results

The LACAP may be defined as a masterplan defining the specific adaptation scenario of the pilot area. The future steps of development of the LACAP should address the necessary preliminary analytical and diagnostic phases, analyze the technical and economic feasibility of the various solutions, and study and design them in detail, within a general and coordinated vision, and considering the relationships and mutual connections among the various solutions and landscape systems.

The stakeholders agree that a follow-up project should focusing both on developing a masterplan (that would provide guidelines for future public and private developments and actions in the pilot area), and on real demonstration actions. Pilot actions should be considered as part of a broader unitary strategy, and as innovative actions planned and conceived within a more general framework allowing to demonstrate the potential beneficial effects of various scenarios where those solutions can be scaled-up.

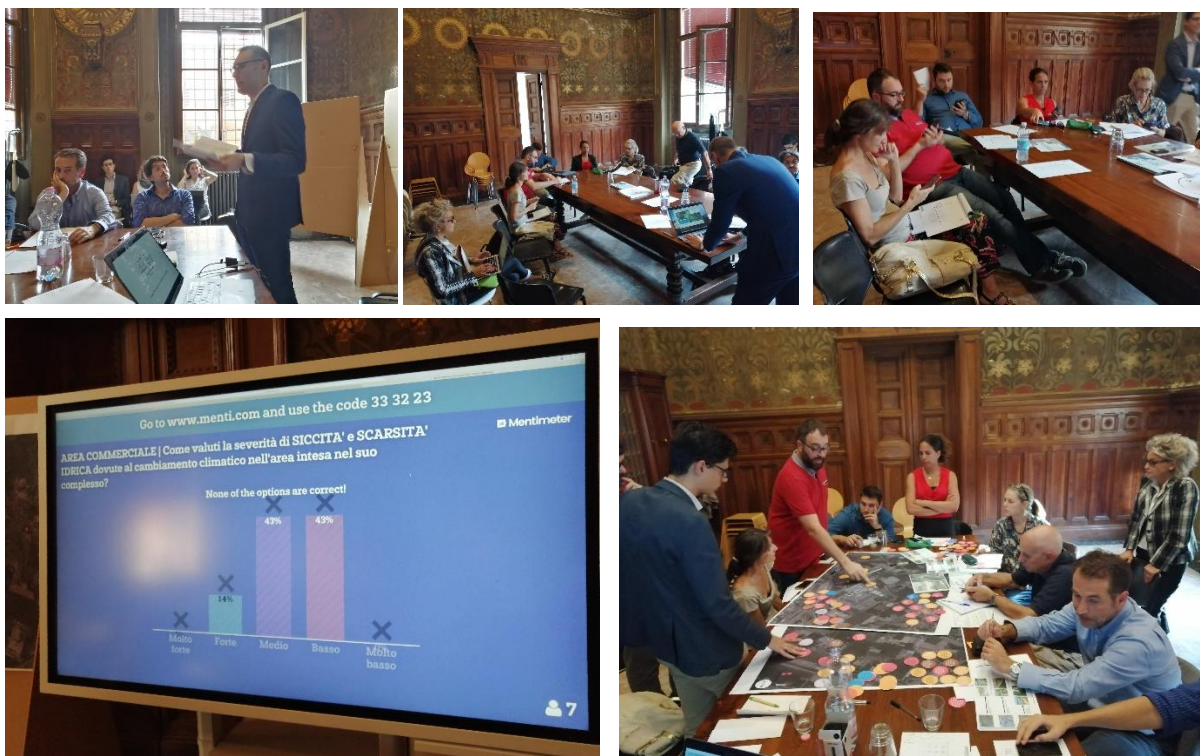
The organizers will integrate the draft LACAP structure resulting from this workshop and circulate it to the network of stakeholders, in order to allow them to send any further comment and suggestion and to confirm/express their potential contribution (in terms of knowledge, skills, activities, synergies, etc.) related to a future project for the development of the Landscape Adaptation Plan to Climate Change. The potential contributions identified by the stakeholders so far are as follows:

- Territory Analysis (Data/knowledge);
- Risk analysis and risk evaluations;
- Data and knowledge, raising awareness and dissemination in the agricultural world;
- Supply of historical data on crops and irrigation. CAP data;
- Study of impacts on the energy front;
- Community awareness;
- Constructive Support in identifying building and infrastructure solutions to respond to environmental and functional problems;
- Contribute with analysis results/pilot projects on mobility, water, waste;
- Triggering virtuous processes for circular economy;
- Sharing of the experience gained in environmental assessment and certification;
- Networking and involving other actors also for potential regeneration projects;
- Promoting internal/external awareness and dissemination through the own business, financial and entrepreneurial network.

Closure

The organizers thank all the stakeholders for their active participation. The stakeholders confirm their interest in further developing the activities on the pilot landscape and in the future development of the LACAP.

Picture(s) of the activity, presentation, raw outputs, etc.





SUMMARY:

- Participants agree in being part of the local network of stakeholders;
- Participants agree in being updated on the project's phases and development;
- Participants agree in being involved in a next workshop or meeting;
- Participants agree in using their logos on the project official website;
- Participants confirm their interest in being involved in a future project for the definition of the plan;
- Level of Achievement of the expected outcomes: 5 out of 5.
- Main Shortcomings or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- Main Reasons for the successful achievement of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions. They are also interested in being promoters of a new approach with concrete actions.
- Learnt lessons and recommendations for similar activities in the same place/other places: The stakeholders and the group in general want to achieve a concrete result and have shown interest in continuing the experience towards its realization. They aim to create a coherent, organic and innovative plan that can be configured as a model experience in urban areas and beyond.
- Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity: 5 out of 5.

Authors of the Report:
University of Bologna
Fondazione Innovazione Urbana



ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: May 13, 2019 - from 10 a.m. to 1:45 p.m.

PLACE: Comune di Mantova, Palazzo Soardi, Sala degli Stemmi, Mantova

ORGANIZERS: University of Bologna, University IUAV of Venice

PARTICIPANTS:

Organizers

- University of Bologna (AELCLIC partner): Daniele Torreggiani
- University IUAV of Venice (AELCLIC Third Party): Anna Marson, Francesco Musco, Denis Maragno

Stakeholders who accepted to join the network of stakeholders:

- Gabriella Montanarini, Municipality of Mantova
- Sandra Savazzi, Municipality of Mantova
- Elisa Parisi, Municipality of Mantova
- Monica Bedini, Municipality of Mantova, UNESCO office
- Giulia Moraschi, Municipality of Mantova
- Marcella Ghidoni, Municipality of Mantova
- Iva Tiziana Silvestrin, Municipality of Mantova
- Roberta Marcacciaro, Municipality of Mantova
- Francesca Painsi, Municipality of Mantova
- Stefano Pasquali, Province of Mantova
- Renzo Bonatti, Province of Mantova
- Cristiano Guernieri, Architects Professional Association of Mantova
- Cristina Alinovi, Centro Studi PIM (MI)
- Simone Massari, Mantova Ambiente, gruppo MEA Spa
- Sandro Sutti, Labter Crea Mantova
- Monica Viviani: "Gazzetta di Mantova"
- Fausto Ugozzoli, Aerodron Srl

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- Edoardo Tolasi, Ordine Agronomi forestali,
- Luisa Pedrazzini, Lombardy Region

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This workshop is the first one organized in the "city of Mantova", selected as one of the 16 pilot landscapes where the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this first workshop, to whom participated 21 persons, representatives of the local stakeholder's ecosystem and the event organizers, aims at involving local stakeholders with the pilot area, to present them the project and allow them to co-identify the impacts of climate change on the local landscape as a first step for the future definition of a Landscape Adaptation Plan to Climate Change.

The main objectives of the workshop could be summarized as follows:

- Explain and describe the project to the local stakeholders ecosystem;



- Ease the contact and the networking between the stakeholders and with the project's partners;
- Explore their knowledge and awareness about climate change issues, and carry out a co-identified diagnosis of climate change impacts they know or perceive in the pilot area;
- Evaluate their interest in collaborating in the project and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;

All the stakeholders invited to the discussion declared their interest in collaborating in the project. They also accepted to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

10.00 a.m. Welcoming speech and general thanks

- Andrea Murari, municipality of Mantova: welcoming of the participants,
- Daniele Torreggiani – professor of the Department of Agricultural and Food Sciences of the University of Bologna: presentation and description of the afternoon's agenda, description of the AELCLIC project, work-plan and activities in the pilot area; main climate change impacts in the region;
- Anna Marson, University IUAV of Venice: landscape policies and practices
- Francesco Musco, University IUAV of Venice: the climate change adaptation in the current urban planning.
- Denis Maragno, University IUAV of Venice: presentation of the "Resilient Mantova Guidelines".
- The participants briefly introduce themselves.

11.30 a.m. Coffee break

11.45 a.m. Group Work on climate change impacts diagnosis and identification of key issues for the creation of the adaptation plan

Participants work on the diagnosis of critical issues and impacts related to climate change, describing the already tangible and predictable consequences they notice or experience in the pilot area. The discussion aims also at pointing out any critical issue and the opportunities for the creation of concrete strategies for the climate change adaptation.

1.45 p.m Closure

KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

1. Downscaling analysis of climate change impacts

2. Proposal of opportunities for the adaptation plan.

The workshop allowed identifying the principal perceived impacts of climate change on the city of Mantova and at the same time, the bottlenecks in terms of both planning, administration and management of the territory to better face the challenge of climate change adaptation. From this discussion, a list of perceived impacts emerged, reflecting a hierarchy of importance attributed, and proposals divided by themes and areas that could help define the adaptation strategies.



Discussion:

Identification of the problem:

- What impacts derive from Climate Change?
- Critical issues related to climate change
- Impacts on the local landscape, in terms of life, environment, local productive and economic activities, cultural and natural heritage, wellbeing of inhabitants.
- Which could be the critical issues and opportunities for the creation of the adaptation plans?

1. Downscaling analysis of climate change impacts: participants have started from an analysis of general and widespread climate change impacts, bringing out their perception.

The key impacts identified are:

- Increased temperatures;
- Heat waves;
- Air quality;
- Extreme events;
- Water scarcity;
- Flooding;
- Invasion of alien species;
- Eutrophication of lakes;
- Increasing number of insects and seasonal allergies;
- Sudden events;
- Hydrogeological instability;
- Negative impacts on tourism industry;

2. Proposal of strategies for the adaptation plan. Starting from the identification of the main criticalities and obstacles detected on the territory both on the administrative, regulatory, cultural and infrastructural level, possible key themes and approaches are identified to assist the creation of a climate adaptation plan.

The key themes and the approaches identified to focus on within the project are:

→ Policy integration:

- Making sure that the landscape is assumed as "heritage" in climate change adaptation policies in order to have policies more attentive to the intrinsic nature of the place;
- Integrate the perspective of climate change into landscape and heritage action plans. A first moment of experimentation could be the new UNESCO site management plan.
- Build a synergy with the Soprintendenza in order to include it in the project and start a process of integration of landscape protection policies so that they can include and foster climate change adaptation strategies;
- Shift from burden based landscape policies to design based and rewarding ones;
- Create a nexus between the landscape policies and the organization systems;
- Look for adaptive strategies to inform both urban planning and sectoral plans;
- Maintain consistency and consider the National Energy Strategy (SEN) and the National Integrated Energy and Climate Plan (PNIEC);



→ Localization and measure of impacts

- Map the impacts found, giving precise localization and description in order to have a synthetic and exhaustive picture of the perceived phenomena.
- Define how to measure the impacts in order to share and collect precise data and create a common language.

→ Projects for the transformations of urban public spaces:

- Promote green infrastructures projects and nature-based solutions as coherent and integrated strategies for the climate change adaptation within the urban plans.
- Promote the project and transformation of public green and neighborhood areas so that they can respond to the needs and expectations of citizenship becoming more attractive than air-conditioned enclosed spaces.
- Redesign the network of urban public spaces to increase their resilience according to an incremental approach. "Implement the experience Resilient Mantova".
- Rethink and codify the ways in which private property spaces, whether parts of buildings or open spaces, can contribute to the increase in urban green areas.
- Promote incentives and reward policies for urban forestry interventions.
- Allocate funds and provide investments for green area's management whether they are valuable or neighborhood areas.

→ Water Use

- Foster a more conscious management of water both in private and in public areas, whether it means manage wetlands and marshes or the Mincio's River system.
- Improve the interaction between the various subjects involved in the "river contract" of the Mincio, harmonizing the objectives of development and management of the river system so that they also contemplate strategies of adaptation to climate change.

→ Communication and sensibilization

- Promote awareness of the effects of climate change and launch specific awareness-raising campaigns
- Reform the design culture of public space by launching specific actions with professional associations.
- Highlight the importance of green public spaces for the entire city and for single neighborhood.
- Involve private individuals in the implementation of good practices through reward policies and tax incentive systems.

→ Mobility

- Need to rethink mobility in order to cope a double goal: reduce emissions and produce mitigations by implementing the green public areas system.
- Redesign the slow mobility infrastructures in order to confer attractiveness to it;

→ Soil consumption

- Find strategies to stem the impermeability or poor permeability of soils;

Discussion: the key impacts and critical issues identified by the group work concur to form a first framework of the effects of climate change on the pilot case of the city of Mantua.

Summary of Results:

The local stakeholders involved at the table proved to participate in the discussion actively intervening and identifying various impact problems caused by climate change. Thanks to the contribution of the individual experiences of each of the stakeholders involved and of the suggestions that the organizers provided during the workshop, the discussion has been animated, producing a good level of interaction that eventually led to shared results. In addition to the identification of a list of impacts, the outcome of the workshop is the definition of key issues and proposals for the creation of a climate change adaptation plan.

Closure

The organizers thank all the stakeholders for their active participation and recall that the elements that emerged in today's discussion will be the basis for the next workshop.

Picture(s) of the activity, presentation, raw outputs, etc.



SUMMARY:



- Participants agree in being part of the local network of stakeholders;
- Participants agree in being updated on the project's phases and development;
- Participants agree in being involved in the second workshop to be held on July 16th;
- Participants agree in using their logos on the project official website;
- Participants confirm their interest in being involved in a future project for the definition of the plan;
- Level of Achievement of the expected outcomes: 5 out of 5.
- Main Shortcomings or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- Main Reasons for the successful achievement of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions.
- Learnt lessons and recommendations for similar activities in the same place/other places: stakeholders have showed a great interest in sharing their own experience and have highlighted the availability to participate to AELCLIC project. Opportunity of deepening specific aspects of synergy between public bodies at different levels, and of strengthening synergies between public and private stakeholders.
- Level of influence of the local characteristics (social, geographical, etc) in the development of the activity: 5 out of 5.

Authors of the Report:
University of Bologna
University IUAV of Venice



ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: July 16, 2019 - from 3.00 p.m. to 6:00 p.m.

PLACE: Biblioteca Comunale Teresiana, Sala Teresiana, Via Ardigò 13, Mantova

ORGANIZERS: University of Bologna, University IUAV of Venice

PARTICIPANTS:

Organizers

- University of Bologna (AELCLIC partner): Daniele Torreggiani, Ludovica Marinaro
- University IUAV of Venice (AELCLIC Third Party): Francesco Musco, Denis Maragno

Stakeholders who accepted to join the network of stakeholders:

- Professional association of agronomists of Mantova: Marco Goldoni;
- Lombardy Region: Luisa Pedrazzini;
- Municipality of Mantova: Sandra Savazzi; Elisa Parisi; Sofia Salardi; Mariangela Busi; Roberta Marchioro;
- Consorzio di Bonifica Territori del Mincio: Barbara Schiavinato;
- Mantova Ambiente, gruppo MEA Spa: Simone Massari;
- Labter Crea Mantova: Sandro Sutti;
- Gazzetta di Mantova: Monica Viviani;
- Aerodron Srl: Romeo Broglia.

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- **Municipality of Mantova:** Giulia Moraschi; Monica Bedini; Gabriella Montanarini; Iva Tiziana Silvestrin; Francesca Paini; Marcella Ghidoni
- **Centro studi PIM:** Cristina Alinovi
- **Mantova Ambiente, gruppo TEA Spa:** Giorgio Grossi

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This is the second workshop organized in the “city of Mantova”, selected as one of the 16 pilot landscapes where the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this second workshop, attended by 16 persons, representatives of the local stakeholder’s ecosystem and the event organizers, aims at defining and mapping the relevant impacts of climate change for the study area and at co-defining the contents and structure of a future Landscape Adaptation Plan to Climate Change (LACAP).

The main objectives of the workshop could be summarized as follows:

- Providing a brief explanation and description of the project, mainly for the benefit of those who did not attend the first workshop;
- Facilitating the contact and the networking between the stakeholders and with the project’s partners;
- Co-identifying a diagnosis of climate change impacts known/perceived by the stakeholders in the pilot area;



- Evaluating the interest of the new stakeholders and confirm that of the already existing network in collaborating in the project, and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Co-defining the possible contents of a future plan for adapting the pilot landscape to climate change and how it may be connected to spatial and land use plans and other sector plans.

All the stakeholders invited to the discussion, new participants included, have confirmed their interest in collaborating in the project. They have also welcomed to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

3.00-3.15 p.m. The AELCLIC project: towards a Landscape adaptation plan to climate Change, the second Workshop.

- Opening welcome, brief presentation of the project and presentation of the agenda
- Summary of the results of the 1st workshop
- The stakeholders introduce themselves

3.15 – 4.00 p.m. | Changing landscapes and shared strategies to inhabit them.

Implementation of the results of the first workshop, both for the diagnosis of the impacts of climate change on the landscape, and for the future definition of the plan for adapting the landscape to climate change.

- Coding and mapping of climate change impacts on the pilot area, understanding their potential effect on the landscape. The group work has been based on some thematic maps illustrating some of the main effects of climate change detected during the first workshop (eg. Temperature rise and heat waves - See the report of the first workshop).
- Definition of adaptation opportunities and strategies, also referring to the different types of urban areas.

4.00 – 5.15 p.m. | The future Plan: Content and structure.

- Open discussion focused on the co-definition of the possible structure and contents of the future LACAP. The project activities, benefitting of the previous work carried out in the pilot area by the city of Mantova and IUAV, aim at creating added-value by co-defining the contents of a future Landscape Climate-Change Adaptation Plan, intended as a systemic and cross-sector document lending support to spatial and sector planning, also based on some examples and best practices in the international context.

5.15 – 6.00 p.m. | A roadmap for the plan.

Since the goal of the project is the creation of *“regional/local consortia with the **social, financial, administrative and technical capacity** to co-define in the future Landscape Adaptation Plans to Climate Change”*, this last part is aimed at defining what will be needed to create the plan in terms of knowledge, activities and resources (already available or to be acquired), as well as at exploring how the future plan may be connected to spatial and land use plans and other sector plans.

6.00 p.m. | Closure



KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

1. Definition of climate change impacts on the pilot area and understanding their potential effect on the landscape.

2. Initial draft of the contents and the structure of the future LACAP

1. Defining the climate change impacts on the pilot area and understanding their potential effect on the landscape: Starting from the results of the previous workshop and looking at an aerial image of the city and at a thematic map representing the summer heat wave effects, the participants discuss about the perceived impacts in the various parts of the city.

The workshop has allowed to confirm the main perceived impacts of climate change on the city of Mantova emerged during the first workshop. From this discussion, the list of perceived impacts has been confirmed/implemented. This updated list now thus reflects a hierarchy of importance attributed to each climate change effect. The proposals outlined to face these effects are then divided by themes and areas that help defining the adaptation strategies.

The key impacts confirmed are:

- Increased temperatures;
- Heat waves;
- Air quality;
- Extreme events;
- Water scarcity;
- Flooding;
- Invasion of alien species;
- Eutrophication of lakes;
- Increasing number of insects and seasonal allergies;
- Sudden events;
- Hydrogeological instability;
- Negative impacts on tourism industry.

2. Proposal of strategies for the adaptation plan. Starting from the identification of the main critical issues and obstacles detected on the territory both on the administrative, regulatory, cultural and infrastructural level, the key themes and approaches identified during the first workshop have been confirmed and led to the further formulation of the contents of the future LACAP.

The key themes identified are:

- Policy integration:
- Policies and actions for the transformations of urban public spaces
- Mobility
- Water Use and management
- Soil consumption
- Communication and awareness raising

Discussion: the key impacts and critical issues identified by the group work contribute to define the framework of the effects of climate change on the pilot case of the city of Mantova. The results of



the first workshop have been confirmed and the discussion has allowed to investigate the main impacts on the landscape of the main climate change drivers, such as the increase in temperatures and urban heat island effects. Some thematic maps, portraying the main impacts identified, have allowed the stakeholders to evaluate how the urban fabric and the configuration of the public space currently facilitates or complicates an effective adaptation. The attention has been focused, for example, on the important role of vegetation in public spaces and open spaces in general, making it clear its effective contribution in reducing air pollution and improving air quality, thermal well-being and increasing sociality and use of places. This work has also allowed to discuss more clearly some impacts that had been treated less extensively during the first workshop. In particular, the effects of high-speed winds and the important role of vegetation in screening winds and affecting air circulation have been discussed. It also allowed to further stimulate the critical awareness of the network, inviting the participants to work in a landscape scenario perspective. This step, far from aiming at an exhaustive mapping, has proved useful to trigger the second part of the workshop.

2. Initial draft of the contents and structure of the future LACAP

In the second part of the workshop, the discussion has been aimed at outlining the fundamental contents and a possible structure of the future LACAP. Some fundamental characteristics of the LACAP and the role it may play in connection with the spatial planning tools have also been discussed.

The LACAP will have a systemic and cross-scale nature. Although it will be calibrated for the urban scale of the city of Mantua, it will have a particular impact on ecosystems, this calling for the need to define consistent strategies capable of interacting with even wider territorial systems.

The plan will therefore provide complementary strategies both on the urban and broader scale.

The institutional and regulatory framework

- **Agreements with the authorities responsible for territorial governance and landscape protection.** One of the general and priority criteria for drafting the plan concerns the need to establish the necessary synergies with the bodies responsible for the protection and government of the territory and the landscape at the various scales: Region, Superintendence of Cultural Heritage, Basin Authority and local administrations. The relationships that must be established with the region and with the superintendence are of particular importance, so that the adaptations to climate change foreseen are always consistent with the need to protect, conserve and promote the urban, architectural and in general cultural heritage of the city.
- **Integration and complementarity with existing plans and instruments.** Consequently, there is the need to formulate a general strategy of integration and dialogue with the urban planning instruments in force at the various scales and with the various sector plans. The future LACAP will have to constitute an integrative and corrective level of the transformation and protection policies of the urban landscape of Mantova. The LACAP may act as a layer connecting the various sector plans, through landscape as a linking key, with particular reference to the connections with:
 - the new Landscape Plan: relevant in-depth studies to be carried out at higher scales. Possibility that the plan contributes to influence the criteria of attribution of the classes of landscape sensitivity.
 - the PGT (urban land management plan) under revision, the maintenance of its knowledge framework, and its monitoring.
 - all the relevant sector plans: mobility, vegetation and green areas, energy etc.



- the CAP and biodiversity and landscape quality goals.
- the emergency management plan, for what concerns earthquakes, extreme events and severe climate conditions, etc.

Systemic actions on a broad territorial scale

- **Strengthening the ecological network**

The plan will have to act on the existing ecological network by promoting actions aimed at strengthening it and recreating/mending /implementing it where necessary. The LACAP should take advantage of the opportunities related to the potential synergies with the new multifunctional green network under definition by the Lombardy region, based on the ecologic network and its further development with reference to cultural, naturalistic and agricultural aspects. The network is drawn at the regional level and will need to be detailed at the municipal level. The LACAP should deal with this point, addressing the multi-functionality of these networks and the related ecosystem services and resilience also in a social key, also focusing on the development of the finer elements of the network that have been becoming poorer and poorer over time.

- **Urban regeneration and green systems**

The LACAP should aim at promoting urban regeneration (including densification, if/where possible), at increasing the quantity and quality of green areas and green systems (including vertical green), and at improving the resilience of areas under development (industrial areas, etc.).

- **Promote a conscious and sustainable water management**

"If water changes, Mantova changes". The future plan will have to address the theme of water and its management, enhancing the systemic and multi-semantic declinations with respect to the landscape. Water must be conceived primarily as a precious resource. Water management must be understood by the plan as an important preventive and defense strategy against hydrogeological risk; as an identifying character of the urban landscape; as a resource for the production of new services including tourism. Water management can affect water quality, impacting on the aesthetics and amenity values of the river and lake, and thus on the tourism sector.

- **Promote sustainable land use**

The LACAP should promote a zero soil consumption scenario, improve the quality of urban soils to increase resilience and limit hydrogeological risks, and define strategies to improve soil permeability;

Systemic actions on the urban scale

- **Work on public space to increase resilience**

The network of urban public spaces can also become a laboratory for the experimentation of new technological and compositional solutions, working on pavings and on green systems (trees, shrubs, turfgrass) of the roads, on the choice of materials, on water disposal and collection devices, lighting, etc.

- **Rethink urban mobility with greater regard to public mobility.** To encourage the use of public transport and multimodality in order to promote greater use of bicycles.

Systemic actions on the built heritage

- **Promote targeted actions on the built heritage.** The LACAP should promote the implementation of a program aimed at increasing the energy efficiency of public and private

buildings, to improve their performance and contribute to limiting energy consumption. The contents of the LACAP must also provide complementary guidelines and tools to promote and encourage urban regeneration interventions.

Awareness raising, education and communication.

The LACAP should include adequate communication and raising awareness strategies on the subject of climate change, so that the adaptation strategies are understood by the citizens. This kind of educational and informative action plays a crucial role since it lays the necessary foundations for the development of a collective critical awareness related to the theme of landscape adaptation.

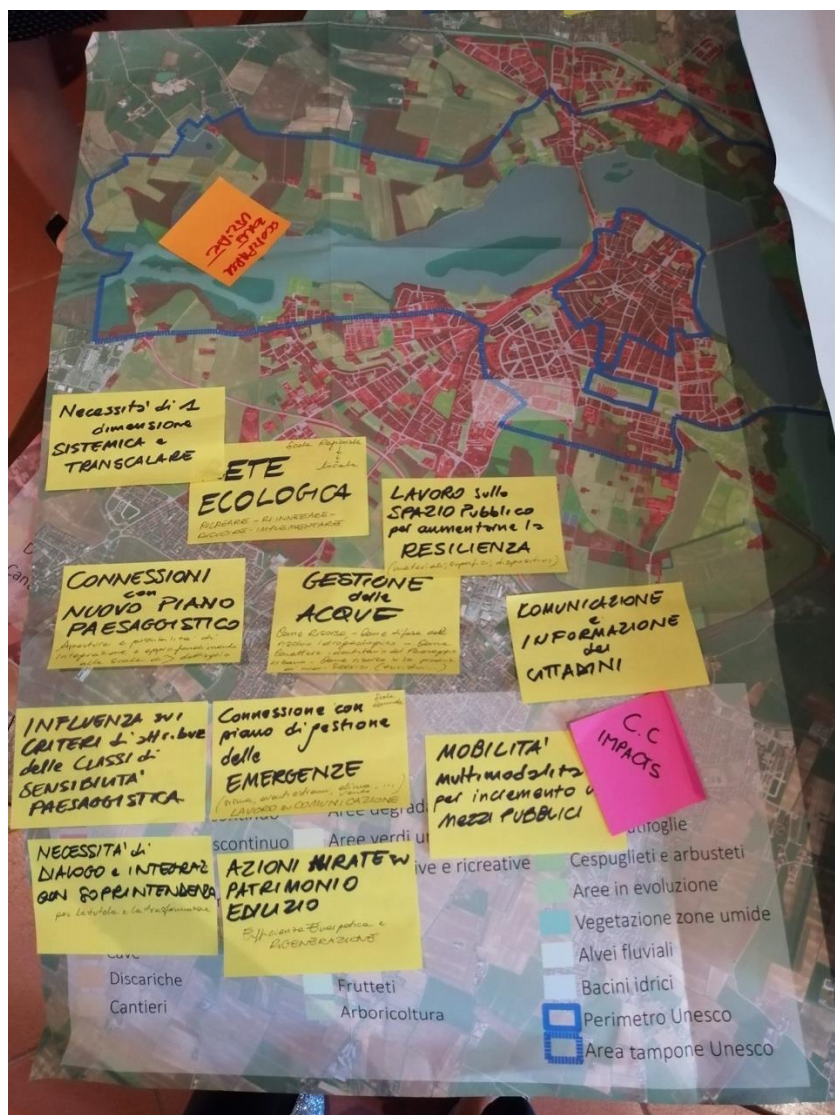
- Promote campaign to raise citizens' awareness on climate change issues.
- Promote an educational project that is suitable for various types of users (both for schools, professionals, and adults in general).
- Provide an adequate continuous communication strategy.

Summary of Results:

The local stakeholders have proved to participate in the discussion actively intervening and identifying both the problems caused by climate change and the possible strategies to cope with them. The has fruitful discussion and good interaction has allowed to identify a list of impacts and key issues and proposals for the creation of the future LACAP.

Picture(s) of the activity, presentation, raw outputs, etc.







SUMMARY:

- Participants agree on being part of the local network of stakeholders;
- Participants agree on being updated on the project's phases and development;
- Participants agree on using their logos on the project website;
- Participants confirm their interest in being involved in a future project for the definition of the LACAP;
- Level of Achievement of the expected outcomes: 5 out of 5.
- Main Shortcomings or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- Main Reasons for the successful achievement of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions.
- Learnt lessons and recommendations for similar activities in the same place/other places: stakeholders have showed a great interest in sharing their own experience and have highlighted the availability to participate to AELCLIC project. Opportunity of deepening specific aspects of synergy between public bodies at different levels, and of strengthening synergies between public and private stakeholders.
- Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity: 5 out of 5.

Authors of the Report:
University of Bologna
University IUAV of Venice



23ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: July 19th, 2019 - from 10.00 p.m. to 15:30 p.m.

PLACE: Fondazione Radice Pura, Strada 17, N. 19. Fraz. di S. Leonardello – Giarre (CT)

ORGANIZERS: University of Bologna, Fondazione RadicePura, Piante Faro

Organizers

- University of Bologna (AELCLIC partner): Daniele Torreggiani, Ludovica Marinaro
- Piante Faro, Fondazione Radice Pura (AELCLIC Third Party): Giusi Monti, Sergio Cumitini

Stakeholders who accepted to join the network of stakeholders:

- IN/Arch Sicilia, Dott. Ignazio Lutri;
- Donnafugata and Coldiretti Sicilia: Francesco Ferreri;
- Associazione Musicale Etnea: Luca Recupero;
- Fondazione Piccolo and Agenzia per il Mediterraneo: Michele Germanà;
- Garden club ETNA: Giovanna Cosentino; Maria Carmela Vagliasindi

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- Garden of Villa Borghese: Virginia Borghese;
- Councilor for Culture of the Municipality of Catania, Barbara Mirabella;
- Director of ecology and environment Municipality of Catania: Lara Riguccio;
- Legambiente Catania: Dott. Sandro Di Bella; Dott. Alfredo Tamburino ;
- Municipality of Giarre, Cultural Office
- FAI section of Catania, LIONS Club of Catania: Mandalà Prof.ssa Antonella
- Fondazione La Verde La Malfa, Art Park
- IDEATTIVA
- Garden of Kolimbetra
- Garden Club of Taormina: Ilde Tomassetti
- Garden Club of Messina: Flora Bombarda
- Orto Botanico of Catania: Prof. Gianpietro Giusso
- Le stanze In fiore
- ITALIA NOSTRA section of Messina

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This workshop is the first one organized in the area called after Etna Landscapes, selected as one of the 16 pilot landscapes where the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this first workshop, to whom participated 10 persons, representatives of the local stakeholder's ecosystem and the event organizers, aims at determine and map the relevant impacts of climate change for the study area and then to co-define the contents and structure of a future Landscape Adaptation Plan to Climate Change.

The main objectives of the workshop could be summarized as follows:



- Explain and describe the project to the local stakeholders ecosystem;
- Ease the contact and the networking between the stakeholders and with the project's partners;
- Carry out a co-identified diagnosis of climate change impacts they know or perceive in the pilot area;
- Evaluate the interest of the stakeholders in collaborating in the project and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Co-define the possible contents of a future plan for adapting the pilot landscape to climate change and the operational methodology with which this document / tool should be created and interact with the existing urban planning instruments.

All the stakeholders invited to the discussion confirmed their interest in collaborating in the project, and have shown interest and availability in a second workshop to be held hopefully in September. They also accepted to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

9.30- 9:45 a.m. | Welcome coffee

9:45 - 10:30 a.m. | The AELCLIC project: toward a landscape adaptation plan to climate change

Introduction and presentation of the AELCLIC project

- Opening greeting and presentation of the organization of the afternoon's work
- Presentation of the AELCLIC project and workplan + Climate change in a nutshell
- The participating stakeholders briefly introduce themselves
- Presentation of the pilot area: brief overview

10.30 - 11:45 a.m. | Changing landscapes. Perceived impacts on local plan.

Group work to assess the existing and most perceived impacts of climate change on the pilot area.

- Brief illustration of the purpose of the work to be conducted.
- Group work - A diagnosis of critical issues and impacts related to climate change is made, describing the already tangible and predictable consequences (guiding themes: extreme events, drought, desertification, temperature increase).
- During the work the impacts and criticalities are displayed aerial photo of the area in large format (coordination and visualization by UniBO).

11:45 a.m. – 1:00 p.m. | Visions to nourish the plan.

Focus groups to identify themes and possible solutions for the future plan for adapting the local landscape to climate change.

- Brief illustration of the purpose of the work to be conducted.
- Table tour: based on the results of the diagnosis of the first part of the morning, the stakeholders are invited to reflect on the possible adaptation solutions that could be implemented in the specific context, on the objectives that the adaptation plan should be and on the issues and the contents that the plan should deal with.



- During the work, the proposed objectives, themes and contents are displayed on a blackboard / aerial photo of the area in large format. This first brainstorming will be the subject of further implementation during the subsequent phases of the workshop.

1:00 – 2:00 p.m. lunch

2:00 – 3:00 | The Future Plan: first hypothesis of possible contents and structure of the plan.

- Brief illustration of the purpose of the work to be conducted.
- Open discussion among all stakeholders on possible contents of the future plan

3:00 - 3:30 p.m. | Conclusions - A ROADMAP for the plan.

Due to the strategic objective of the project, which in each pilot area aims to create "networks of local actors with the social, financial, administrative and technical capabilities to co-define in the future the adaptation plan of their own landscape to climate change", the workshop closes with a group discussion aimed at defining what it will take to create the plan for adapting to climate change in the Etna landscapes, in terms of knowledge, activities and resources (already available or to be acquired), in order to explore the feasibility (also in terms of connections with formally established institutions) and the most effective training process for the future creation of the plan.

KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

1. Definition of climate change impacts on the pilot area foreshadowing their potential effect on the landscape.

2. Initial draft of the contents and the structure of the future landscape adaptation plan to climate change.

1. Definition of climate change impacts on the pilot area foreshadowing their potential effect on the landscape: Starting from the introduction made by the organizers and a general overview of climate change impacts on the region, participants communicate their perception by applying on a cartographic support. Participants have started from an analysis of general and widespread climate change impacts and have then focused on the pilot area.

Discussion:

Identification of the problem:

- What impacts derive from Climate Change?
- Which critical issues are related to climate change?
- Impacts on the local landscape, in terms of life, environment, local productive and economic activities, cultural and natural heritage, wellbeing of inhabitants.

Summary of Results:

The local stakeholders involved at the table proved to participate in the discussion actively intervening and identifying various impact problems caused by climate change. They also proved to be proactive in thinking about the possible contribution they could make to the project for the implementation of the adaptation plan.

The workshop allowed to identify the principal perceived impacts of climate change on the area of Etna landscapes. From this discussion, a list of perceived impacts has been created and it now reflects



a hierarchy of importance attributed to each climate change effect. The imagined proposals to face these effects are then divided by themes and areas that help define the adaptation strategies.

The key impacts confirmed are:

- Increased temperatures;
- Heat waves;
- Desertification;
- Climate tropicalization
- Extreme events;
- Water scarcity;
- Flooding;
- Sudden events;
- Hydrogeological instability;
- Abandonment;

2. Proposal of strategies for the adaptation plan. Starting from the identification of the main criticalities and obstacles detected on the territory both on the administrative, regulatory, cultural and infrastructural level, the key themes and approaches identified during the workshop has been created and led to the further formulation of the contents of the climate adaptation plan of the landscape.

The key themes identified to focus on within the project are:

- Policy integration;
- New models of governance;
- Financial incentives and new regulatory system;
- Reuse strategies;
- Circular Economy;
- Link with production chains;
- Recovery of traditional trades and knowledge;
- Care and protection of the territory;
- interventions on the green in urban areas;
- Renewable energies;
- Water Use and management;
- Soil consumption and impermeabilization;
- Agriculture as a testing laboratory of adaptation techniques;
- Tourism promotion;
- Communication and sensibilization of the citizenship;

Discussion: the key impacts and critical issues identified by the group work concur to define the framework of the effects of climate change on the pilot case of the Etna Landscapes. The discussion was able to investigate the effects on the landscape caused by the main impacts detected, such as the increase in temperatures, climate tropicalization and heat islands. Working on maps allowed the stakeholders to examine the impacts localizing them in the territorial context. This exercise conducted on the pilot area has enabled the critical awareness of the network to be stimulated, inviting the stakeholders to develop reasoning that started from landscape scenarios. This step, far from having an intent of exhaustive mapping, was instead the trigger necessary for the second part of the workshop, of a more projective and proactive nature.



2. Initial draft of the contents and the structure of the future adaptation plan of the landscape to climate change.

The second part of the workshop, which was also the one on which the most substantial part of the activity was concentrated, saw a discussion aimed at outlining the fundamental contents and a possible structure of the future plan to adapt the landscape to climate change. During the work group, a further in-depth discussion has been operated by the organizers with the illustration of international examples of climate adaptation plans promoted by various cities and metropolitan contexts, to feed the discussion and provide new ideas for the co-definition of the contents and the structure of the plan. The discussion then took place on the basis of the inputs provided and the results of the diagnosis of the impacts, outlining a first draft of desirable contents. In general, have been established some fundamental characteristics of the plan and the role it can play in concert with the existing urban planning instruments in order to make it effectively concrete and maximize the correspondence and the positive effects on the landscape.

GENERAL SCOPE AND CONSTITUTION

SYSTEMIC APPROACH TO COPE WITH LANDSCAPE DIVERSITY

The case of Etna landscapes is applied to a vast area whose borders are often blurred and which presents above all a great variety of landscapes in a relatively small territory. This marked diversity and variety has the effect of presenting a varied series of impacts found which are reflected in as many possible strategies and actions to deal with them. Therefore, the plan to adapt the landscape to climate change will have a systemic and transcalar dimension capable to adapt to a conspicuous landscape variety, which includes: urban areas, coastal areas, agricultural areas, mountain areas (the slopes of Etna). The plan will therefore provide complementary strategies for the various landscape unities.

LANDSCAPE AS A COMMON GOOD

The network, although there were many interested in the meeting, showed a good level of awareness of the problem covered by the AELCLIC project and more generally of the value and importance of the landscape. We can speak of a network that already possesses an adequate conception of the landscape. The widespread awareness that the landscape is a "common good" has emerged from the discussion. The plan will therefore start from this principle of sharing and attribution of value.

CIRCULAR ECONOMY

The network has shown a keen awareness that the effects of climate change will produce significant changes for the production activities of the territory, with particular reference to agricultural, nursery and wine-making activities in the area but not only, both in positive and in negative. It is therefore important that the adaptation strategies also include business strategies, in the sense that they involve the stakeholders of the territory in order to carry out their activities to assist adaptation, for the common good and for a landscape that continues to be representative of the identity and culture of the whole community. The plan with its strategies must therefore encourage the creation of a circular economy model.

REDISCOVER TRADITIONS

The plan to adapt the landscape to climate change can be an opportunity to rediscover and find new and modern application to all the rich wealth of experiences, technologies, ancient design solutions and traditional knowledge that have made these landscapes an expression harmonious of their communities, balanced systems. Informing the plan with this knowledge makes the site specific and cultural specific strategies and is configured as a good strategy for strengthening the identity as well as for communicating the project.



The institutional and regulatory framework

- **Agreements with the authorities responsible for territorial governance and landscape protection.** One of the general and priority criteria for drafting the plan concerns the need to establish the necessary synergies with the bodies responsible for the protection and government of the territory and the landscape at the various scales: Region, Superintendence of Cultural Heritage and local administrations. The relationships that must be established with a leading Municipality, for example the municipality of Catania, and with some virtuous municipalities are of particular importance. In fact, the group highlights the importance of having an institutional reference that can take charge of the future promotion and implementation of the plan, due to its proven importance.
- **Promote new governance models.**
- **Integration and complementarity with existing urban planning instruments.** Consequently, there is the need to formulate a general strategy of integration and dialogue with the urban planning instruments in force at the various scales. The future adaptation plan to climate change will have to constitute an integrative and corrective level of the transformation and protection policies.
- **Updating the existing planning instruments**
There is in general the need for the updating of programming and regulatory tools that could be also enriched with the creation of matrices of planning solutions and guidelines that can help the implementation of climate adaptation strategies at various levels.

Systemic actions on a vast territorial scale

- **Use Agriculture as a sector for experimenting with innovative techniques for adapting to climate change**
- **Improve and make explicit the direct link between supply chains and landscape.**
The enhancement of production chains, especially in the agricultural sector but also in the wine and nursery sector, appears as a strategy of synergetic adaptation of the territory and its operators to the changes that are affecting landscapes. Applying adaptation strategies that directly involve local companies with a range of solutions ranging from economic and financial incentives to concrete projects for transforming the territory, means making explicit and fully exploiting what the ELC has defined as "economic value of the landscape".
- **Promote a conscious and sustainable water management**
The future plan will have to take on the theme of water and its management, enhancing the systemic and multi-semantic declinations with respect to the landscape. Water must be conceived primarily as a precious resource. Water management must be understood by the plan as an important preventive and defense strategy against hydrogeological risk; as an identifying character of the urban landscape; as a resource for the production of new services including tourism.
- **Promote sustainable land use**
Stop soil consumption and improve the quality of urban soils to increase resilience and limit hydrogeological risk. Find strategies to stem the impermeability or poor permeability of soils;
- **Promote the connection with the coastal areas**
The plan must also be charged with improving communication between the hinterland and the coast, by acting on the mobility system that must be secured by extreme events and the numerous floods that occur during the latter.

Systemic actions on the urban scale

- **Work on public space to increase resilience**



The network of urban public spaces can also become a laboratory for the experimentation of new technological and compositional solutions, through work on the paving and on the arboreal shrubby system of the roads, on the choice of materials, on water disposal and collection devices, lighting etc ..

- **Improve the mobility**

it is necessary to implement a series of initiatives for the improvement of public transport and to create an efficient network that allows the development of soft mobility, an alternative to the massive use of private cars.

Systemic actions on the built heritage

- **Increase the use of energy from renewable sources.**

The use of renewable energy sources is generally felt as a priority adaptation strategy.

- **Promote targeted actions on the built heritage.** Implement a program for the energy efficiency of buildings to improve their performance and contribute to limiting energy consumption.

Awareness raising, education and communication.

The plan must also include adequate communication strategies and raising awareness of the citizenry on the subject of climate change, so that the adaptation strategies are understood and internalized by the citizens. This kind of educational and informative action lays the necessary foundations for the development of a collective critical awareness related to the theme of landscape adaptation and is of great importance.

- Promote campaign to raise awareness of citizenship on the issue of climate change.
- Promote a related educational project that is suitable for various types of users (both for schools, for professionals, and for adult citizenship in general).
- Provide an adequate continuous communication strategy.

Summary of Results:

The local stakeholders involved at the table proved to participate in the discussion actively intervening and identifying both the problems caused by climate change and the possible strategies to cope with them. Thanks to the contribution of the individual experiences of each of the stakeholders involved and of the suggestions that the organizers provided during the workshop, the discussion has been animated, producing a great and proactive level of interaction that led to shared results. In addition to the identification of a list of impacts, the outcome of the workshop is the definition of key issues and proposals for the creation of a climate change adaptation plan.

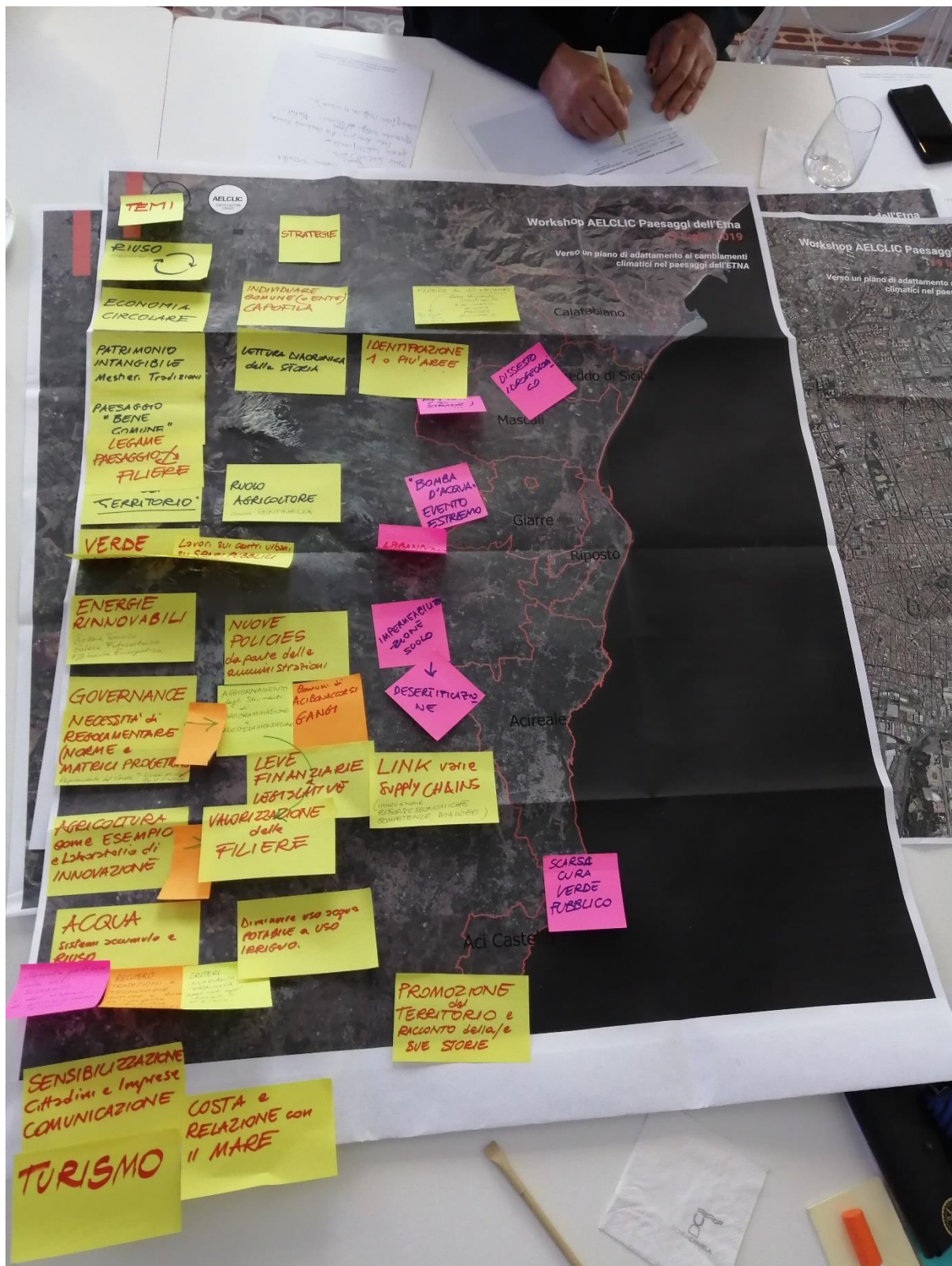
Closure

The organizers thank all the stakeholders for their active participation and recall that the elements that emerged in today's discussion will be the basis for the next step. All the stakeholders agree on the possibility of carrying out a new workshop to complete the projective part and the determination of the structure and contents of the plan.

Picture(s) of the activity, presentation, raw outputs, etc.







**SUMMARY:**

- Participants agree in being part of the local network of stakeholders;
- Participants agree in being updated on the project's phases and development;
- Participants agree in using their logos on the project official website;
- Participants confirm their interest in being involved in a future project for the definition of the plan;
- Level of Achievement of the expected outcomes: 5 out of 5.
- Main Shortcomings or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- Main Reasons for the successful achievement of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions.
- Learnt lessons and recommendations for similar activities in the same place/other places: stakeholders have showed a great interest in sharing their own experience and have highlighted the availability to participate to AELCLIC project. Opportunity of deepening specific aspects of synergy between public bodies at different levels, and of strengthening synergies between public and private stakeholders.
- Level of influence of the local characteristics (social, geographical, etc) in the development of the activity: 5 out of 5.

ECONOMIC REPORT:

TYPE OF COST	COST (€)
● Travel & Accommodation Costs for the partner(s) members	
● Goods, materials and external services	
● Sub-granting (e.g. Travel & Accommodation costs for Third Parties or collaborators)	
TOTAL	

Authors of the Report:
University of Bologna
Fondazione Radice Pura



ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: July 4, 2019 - from 9.30 a.m. to 13.30 p.m.

PLACE: Factory Hesper, 1st Dr. Constantin Istrati Street, Bucharest

ORGANIZERS: University of Bologna, EURODITE SRL

PARTICIPANTS:

Organizers

- University of Bologna: Daniele Torreggiani, Ludovica Marinaro
- EURODITE Srl: Joep Erik De Roo, Cristiana Stoian

Stakeholders who accepted to join the network of stakeholders:

- Alexandru Tararescu, Factory Hesper
- Adelina Stanoiu, National Institute of Materials Physics
- Iulia Laura Vasile, Architect, private citizen
- Sergiu Cruceanu, Senior advisor for Ministry of the environment,
- Miruna Draghia, Urbasofia (urban planning company)
- Anca Burcus, student landscape architecture, Fundatia Simetria NGO + Parcuri 360
- Irina Leca, National Heritage Institute and Vice-President of the ARCHÉ NGO

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- Lavinia Andrei, president of Terra Mileniul III (NGO)
- Sorin Marin, researcher at the National Astronomical Institute (direct stakeholder in the area)

The following could not attend the workshop due to their schedule, but would like to be involved in the future in case the project continues:

- Miruna Trica, involved in several local organisations that deal with community activation in the Carol Park area

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This workshop, co-organized by University of Bologna and Eurodite SRL, is organized in the multiplier pilot landscape of the city of Bucharest. In the area of "Parcul Carol and Filaret-Rahova neighborhood", which has been selected as one of the 16 pilot landscapes of the project, the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this workshop is aimed at involving local stakeholders connected, at different levels, with the pilot area, presenting them the project, and allowing them to co-identify the impacts of climate change on the local landscape and opportunities for the future definition of a Landscape Adaptation Plan to Climate Change.

The workshop, attended by 11 people, representatives of local stakeholders' ecosystem and the event organizers, has been hosted at the headquarters of HESPER factory, located inside the pilot area.

The main objectives of the workshop could be summarized as follows:

- Explain and describe the project to the local stakeholders ecosystem;
- Ease the contact and the networking between the stakeholders and with the project's partners;



- Evaluate the interest of the stakeholders in the project, be they related or connected to inhabitants, businesses or institutions of the pilot area, or operating at a broader scale including the pilot area or parts of it;
- Explore their knowledge and awareness about climate change issues, and carry out a co-identified diagnosis of climate change impacts they know or perceive in the pilot area;
- Evaluate their interest in collaborating in the project and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Explore the opportunities and collect input on their potential involvement and contribution related to a future project for the definition of a Landscape Adaptation Plan to Climate Change.

All the stakeholders invited to the discussion declared their interests in collaborating, with different modalities and different instruments, to the project. They also accepted to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

AELCLIC Bucharest workshop Agenda

July 4, 2019 – 9.30 am – 13.30 pm

09:00 - 09:30 - coffee/ pastry welcome

09.30 - 10.15 | The AELCLIC project: Towards a climate change adaptation plan

Daniele Torreggiani, University of Bologna: Opening welcome, Description of the AELCLIC project, Work-plan and activities in the pilot area, Main climate change impacts in the region;

Presentation of the pilot area:

Joep Erik De Roo, Eurodite: Cultural heritage of area

Miruna Draghia, Urbasofia: spatial planning/planned development

Anca Burcus, Fundatia Simetria: Landscape analysis

10.15 - 11.15 | Changing Landscapes: Perceived impacts on local territories.

Group work on climate impacts, heritage values and urban planning aspects of the park

Participants work on the diagnosis of critical issues and impacts related to climate change, describing the already tangible and predictable consequences they notice or experience in the pilot area.

Impacts are visualized and mapped in real time.

Coffee break 11.15-11.30

11.30- 12.15 | Envisioning landscape to nourish the future plan.

Brainstorming based on the results of the diagnosis of the first part of the morning. The stakeholders are invited to reflect on the possible adaptation solutions that could be implemented in the specific context, on the objectives that the adaptation plan should take and on the themes and contents that the plan should deal with.

12.15 - 13.00 | Building the AELCLIC's local network.



Plenary discussion: each stakeholder is invited to discuss about the opportunities that can derive from a network collaboration between various local players, in terms of role and contribution in a future project that take care of creating an adaptation plan for the local landscape.

13.00 - 13.30 | A ROAD MAP for AELCLIC plan. Conclusions of the workshop.

KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

1. Downscaling analysis of climate change impacts: participants have started from an analysis of general and widespread climate change impacts and have then focused on the pilot area.

Discussion:

Identification of the problem:

- What impacts derive from Climate Change?
- Critical issues related to climate change
- Impacts on the local landscape, in terms of life, environment, local productive and economic activities, cultural and natural heritage, wellbeing of inhabitants.

Summary of Results:

The local stakeholders involved at the table proved to participate in the discussion actively intervening and identifying various impact problems caused by climate change. They also proved to be proactive in thinking about the possible contribution they could make to the project for the implementation of the adaptation plan.

The key impacts identified are:

- Heat waves;
- Increased temperatures;
- Extreme events;
- Sudden events;
- Air Pollution;
- Water scarcity;
- Seasons change and loss of seasonality;
- Tropicalization
- Soil impermeability
- Loss of Fauna;
- Birds proliferation

The key themes identified to focus on within the project are:

- Maintenance of the park and the neighborhood public spaces network:
 - Ordinary maintenance (better knowledge of the urban landscape): water nets; maintenance of paths and roads; downstream problem with poor channeling; vegetation;



- Extraordinary maintenance: to face repeated flooding; destruction of trees; difficulty in managing utilities consumption; ...
- Water management
Lowering of ground level water
- Impermeability or poor permeability of soils;
- High temperatures and thermic discomfort
Lack of thermal comfort and consequent necessity to use of air conditioning;
Discomfort for weaker groups;
- Vegetation (there is no long term plan for vegetation in the Park and moreover in the neighborhood; need to understand vegetation's key role and issues;
- Ecosystem balance
Increasing number of insects and seasonal allergies;
Invasive species (crows)
- Industrial Heritage (mostly abandoned, needs to be protected and enhanced)
- Manage extreme events as Flooding (e.g. subway, watershed), umber of **summer storms**;
- Mobility: need to rethink mobility in order to reduce pollution and traffic;
 - Scarce appeal of slow mobility infrastructures;
- Tourism: impact on tourism
 - Facilities damaged for a lack of management of the park (paths, stairs, facilities for tourism);
 - Loss of seasonality;

2. Creation of a local ecosystem of stakeholders:

Discussion: the key impacts and critical issues identified by the group work are summarized by the facilitators. Each stakeholder is invited to think about the opportunities and potential contribution (knowledge, skills, activities, etc.) and possible synergies related to a future project for the definition of a Landscape Adaptation Plan to Climate Change.

Summary of Results

Opportunities of the territory

- The main cross-sector and transversal themes which have come out from the work-group are as follows:
 - Initiate actions to raise awareness of citizens and neighborhood residents about climate change effects and the need to create a climate change adaptation plan;
 - Foster a mature environmental awareness;



- Raise awareness about the role and the value of vegetation, in general and to face climate change, as people often see trees merely as objects;
 - Increase public green spaces even for thermal regulation purposes;
 - Promote the natural heritage values protection;
 - Provide actions to make ecosystem in balance again fostering also the rediscover the biodiversity;
 - Improving alternative and sustainable mobility in the city;
 - Act directly on the network of public spaces and above all on the soft mobility; system to improve the quality of the places;
 - Make a clearer link between the limits of the park and the surrounding tissue;
 - Foster the integration of renewable energy solutions in the city (especially solar roofs, or implementing the “Casa Verde Project”);
 - Act on the built heritage to increase the energy efficiency of buildings;
 - Create green pockets connected to the park in the neighborhood;
 - Create green roof demonstrator projects in the neighborhood;
 - Improve the attractiveness of the Park;
 - Turn the Carol Park into a flagship hub of innovation in the climate change and sustainability domains (similar to an exhibition center, a demonstrator of climate change adaptation and dialogue with the industrial heritage with educational purposes);
 - Retention solutions for water;
 - Need for storytelling to improve the park sensory perception;
 - Start a monitor activity on the quality of air, the vegetation status, social uses and perception , ...;
 - Importance of the connection with spatial and landscape planning tools and of the involvement of the municipality of Bucharest / a municipality district in the network.
- From the work group, different opportunities have been identified. They are directly identified with places or features whose involvement in the project could provide desirable adaptation conditions and synergic actions:
- Carol Park and Filaret neighborhood
 - Tineretului Park (provide links) ;
 - Industrial heritage buildings;
 - Cismigiu park (provide links) ;

Potential contribution related to a future project for the definition of a Landscape Adaptation Plan to Climate Change

The stakeholders identified the achievable goals and the possible synergies between the various participants. The main potential contributions can be summarized as follows:

- Data and knowledge, raising awareness and dissemination;
- Study of impacts on the energy front, knowledge about solar cells, demonstrator activities;
- knowledge on built heritage and especially on industrial heritage and architecture;
- heritage studies, activation of heritage buildings, linking partners (ICOMOS) for trying to get grants; Cultural tours; community activation;
- Community awareness; networking with local actors;
- information about vegetation, creation of a green registry, create a ASoP – map for green management; provide volunteers to manage the park;

- Collecting data about the uses and activities of the park;
- knowledge on technical climate change measures;
- Networking and involving other actors to build a strong network and also for potential regeneration projects;
- Promoting internal/external awareness and dissemination through the own business, financial and entrepreneurial network.
- Write proposals, documents, drawings

Picture(s) of the activity, presentation, raw outputs, etc.





SUMMARY:

- Participants express their wish to be part of the local network of stakeholders;
- Participants express their wish to be updated on the project's phases and development;
- Most participants express their wish to use their logos on the project official website;
- Participants agree on the opportunity of evaluating the possibility of organizing a second workshop with the aim to broaden the network and further develop the discussion
- Participants confirm their interest in being involved in a future project for the definition of the plan;
- Level of Achievement of the expected outcomes: 5 out of 5.



- **Main Shortcomings** or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- **Main Reasons for the successful achievement** of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions.
- **Learnt lessons and recommendations** for similar activities in the same place/other places: stakeholders have showed a great interest in sharing their own experience and have highlighted the availability and opportunity to connect other areas to the core area already identified, to benefit from networking at a broader scale. AELCLIC activities on the Bucharest pilot landscapes have thus proved effective also in promoting positive impact and possible connections with other sites in the metropolitan area of the capital.
- **Level of influence** of the local characteristics (social, geographical, etc) in the development of the activity: 5 out of 5.

Authors of the Report:
University of Bologna
Eurodite



<https://aelcllicpathfinder.com/>