Community Catalysts for

Regenerative Development

a Participatory Action Research Report of four distinct rural areas across peripheral Europe

31 July 2019

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1. Preface and Thanksgiving

This report details the process and results of the first phase of the "Community Catalysts for Regenerative Development" project funded by ERASMUS+ Key Action 2, under project code 2018-2-HU01-KA205-048031. The Participatory Action Research phase was co-designed and simultaneously implemented in four rural regions across peripheral Europe by four of the six project partners: Profilantrop Association (Hungary); Palma Nana (Italy); Projecto Novas Descobertas & Orla Design (Portugal) and Resilience.Earth (Spain). In addition to the ERASMUS+ funding, this report is made possible thanks to the active participation of all those interviewed in each of the case study regions:

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- Mercè Teixidor
- Òria Vertedor

Our deep thanksgiving is extended most especially to our planet, who sustains and inspires us, and to the ancestors of our four regions, for doing the same.

Köszönjük, grazie, obrigades, and gràcies,

The Community Catalyst team.

Image 1: Community Catalysts project team during first transnational meeting in Barlavento Algarvio, Algarve, Portugal (Orla Design, 2019)

2. Introduction

Our planet is in a rapidly degenerative cycle, one entirely due to human impact. Around the world, rural regions offer a hopeful future, given their key role in stewarding the land and providing food for the surrounding populations. Also, due to the smaller size of rural communities, they provide fertile ground for testing alternatives that can catalyse accelerated social and ecological change.

This research report offers a regenerative approach to analyse the current context and identification of next steps in rural areas in Europe, using the UN Sustainable Development Goals as a main framework. The research idea emerges from the transnational partnership of six organisations, working together under the ERASMUS+ project "Community Catalysts for Regenerative Development", towards identifying local rural responses to the global climate emergency. The project team proposes this project as the first of a series of three projects, one for each layer of the UN Sustainable Development Goals "wedding cake" (Rockström and Sukhdev, 2016) – the biosphere layer, the society layer and the economy layer – beginning with regenerative development as the proposed response for the biosphere layer.

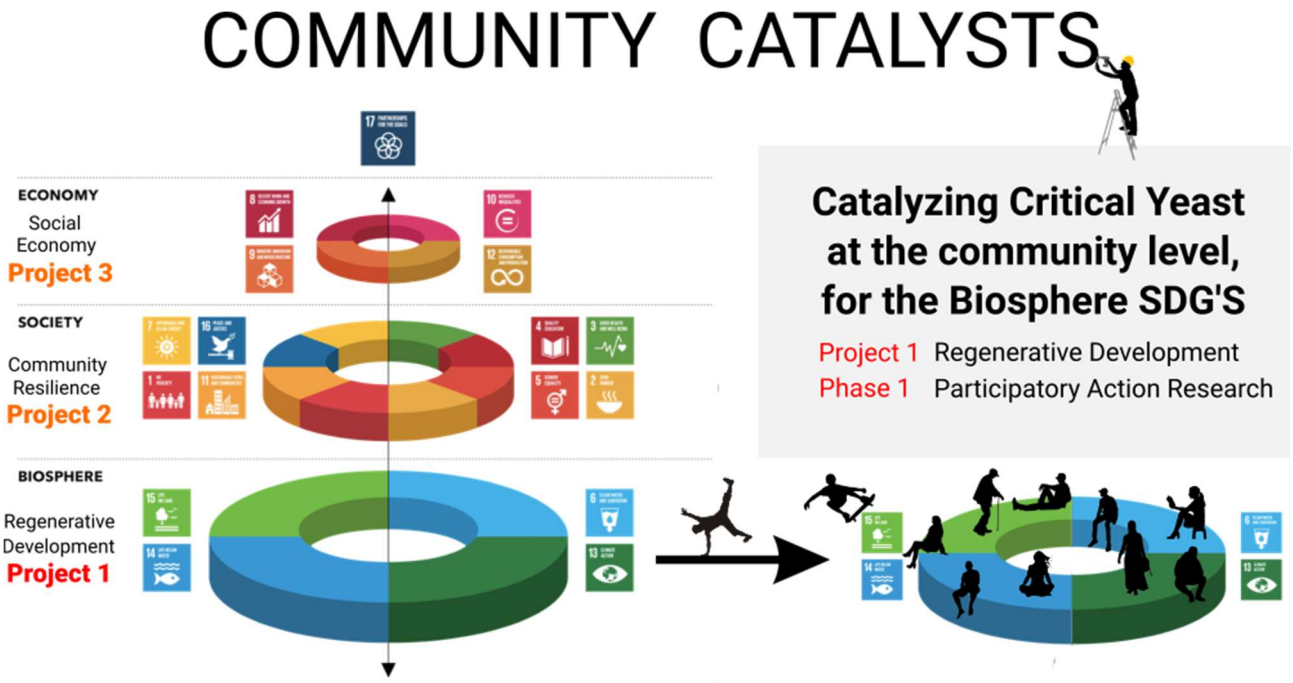

Image 2: Community Catalysts project lifecycle with a focus on Phase 1 of Project 1 (Resilience.Earth, 2019)

The research was carried out from April through to July 2019 and applied Participatory Action Research methodologies to both collect the data and analyse the results. A total of 46 deep interviews and two participatory community meetings were conducted in four distinct rural regions in peripheral Europe. The four regions were selected using criteria that value both their distinctive as well as their common qualities and challenges. As such, the four rural regions of peripheral Europe were:

1. Atlantic coastal Europe (Barlavento Algarvio, Algarve, Portugal)
2. Mediterranean alpine Europe (La Garrotxa, Catalonia)
3. Mediterranean insular Europe (Pollina and Castelbuono, Madonie Park, Sicily)
4. Great European Plain (Ág, North Baranya, Hungary)

This report outlines the theoretical framework, the methodological process and the results and initial conclusions of the research process. The results and conclusions will be revisited and used to inform the next phases of the project, namely a transnational training of trainers and the elaboration of a toolkit and teaching material for trainers of regenerative development.

3. Research Goal and Objectives

The Research-Participatory Action process is based on systems theory and uses the SDGs as a framework and regenerative development models as its main methodology in order to engage potential and current rural community catalysts of ecological transformation. Community catalysts are those who are capable of sparking and propelling their communities towards a *syntagma* (a new paradigm that leaves the old paradigm obsolete) that allows us to respond, instead of react, to the planetary context in which we are immersed as local communities of a global society. As such, the main goal of this research process is to:

Consolidate the regenerative model "We / Land" by researching the emerging patterns of community identity, behaviour and development related to the biosphere, in four different cultural realities in Europe.

This goal is developed through the following specific objectives:

Specific objective 1:	Implement a participatory diagnosis to extract patterns of how the global ecological crisis impacts local identity in four different rural territories in Europe.
Specific objective 2:	Use the SDGs, a conceptual framework with high legitimacy, in order to foster intercultural dialogue about local development.
Specific objective 3:	Test the community resilience model “We Relations” in the identification of roles of community catalysts.
Specific objective 4:	Catalyze the ecological *critical yeast* in the four rural regions of study, in order to prepare communities for the next phases of the project.
Specific objective 5:	Generate knowledge that can be tested and developed in greater depth, in order to consolidate the regenerative development model “We Land”.

4. Theoretical framework

4.1 Systemic drivers of dominant and emergent global paradigms

The theoretical foundations of this research process are systems theories and therefore consider the global context as VUCA (see Image 3). The VUCA context emerges from two main forces that sustain the dominant paradigm of our world:

1. **Globalization**, which modifies cultures, politics and the overall development of countries, reconfiguring the world into a global nation.
2. **Structural violence**, which proliferates a colonisation in the and characterized by an intercultural policy (Raimon Pannikar) and a self-imposed policy (Henry David Thoreau).

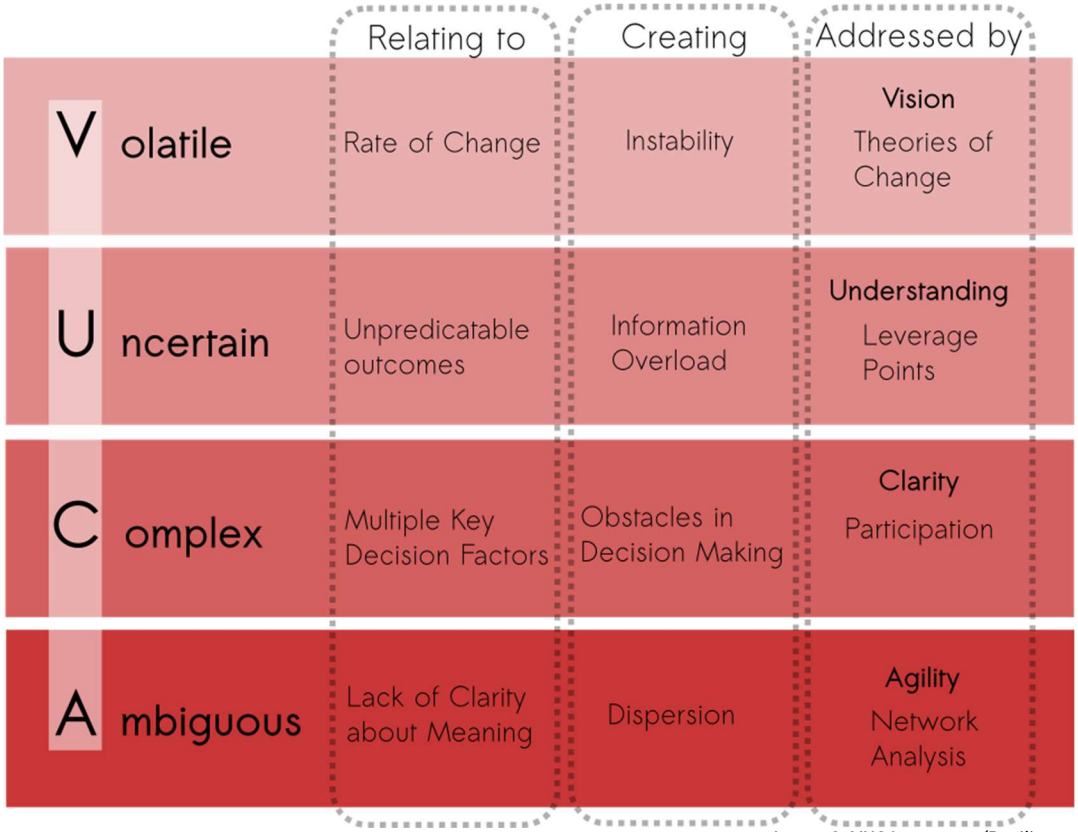

Image 3: VUCA contexts (Resilience.Earth, 2018)

These two forces generate large-scale consequences, namely that of a global systemic crisis. This crisis can be defined by the different faces of the same prism: energy crisis, ecological crisis, climate emergency, humanitarian crisis or that of refugees and displaced persons, food crisis and economic crisis.

This makes it necessary for an inter-independent network of communities around the world to exist (Panikkar, 2003), to knit communities together while nourishing their distinct local relationships to land. But this implies a change in paradigmatic forces, in which leadership occurs from local emergence and not from international policies. Therefore, the global network driver must come from recognition of common challenges, which implies the need for territorial coordination, and much not come from the interests of a distrustful and fearful patriarchal culture.

The classic analogy of Theory X and Theory Y by Douglas McGregor (Gannon & Boguszak, 2013), can help us understand this emergent paradigmatic phenomenon at the municipal level. The community version of Theory X is the one that dominates local and international politics. And this is the one that is generating the situation of systemic crisis. On the contrary, the application of Theory Y would allow us to generate and accelerate more diverse changes, thus increasing the adaptive capacity and resilience of communities. This in turn could catalyse global shifts in our planetary capacity to mitigate the crisis and our future capacity to co-create an intercultural society on a planetary scale.

Theory X	Theory Y
People are lazy	People work hard and want to be busy
People avoid responsibilities	People seek responsibilities and challenges
People need to be controlled	People self-motivate and self-manage
People are naïve and without initiative	People are creative and competent

Table 1: Theory X and Theory Y of development policy and paradigm change

4.2 Regeneration framework and local development

This project is based on a regenerative conceptual framework (Regenesis, 2016). The concept of **regeneration** pushes out of the comfort zone of sustainability, extending beyond the limits of sustainability and expanding the positive potential of human development. This theoretical framework can be understood as a paradigmatic revolution within the scientific field of development.

Currently, the **sustainability** paradigm states that human societies must achieve an energy balance with their environment in order to survive in a finite world. Sustainability became the popular alternative paradigm and development framework at the Rio Summit in 1992. Other currents of thought have emerged from the sustainability framework, such as **degrowth**, which proposes a decline in development in order to reach a equilibrium point between human impact and the natural environment.

If we apply the concepts of sustainability and degrowth, we would achieve a restoration of degraded ecosystems in the medium term and allow the self-recovery of the biosphere at a natural pace. The predominant assumption of the sustainability framework is that the human impact upon nature is intrinsically negative (See Image 4).

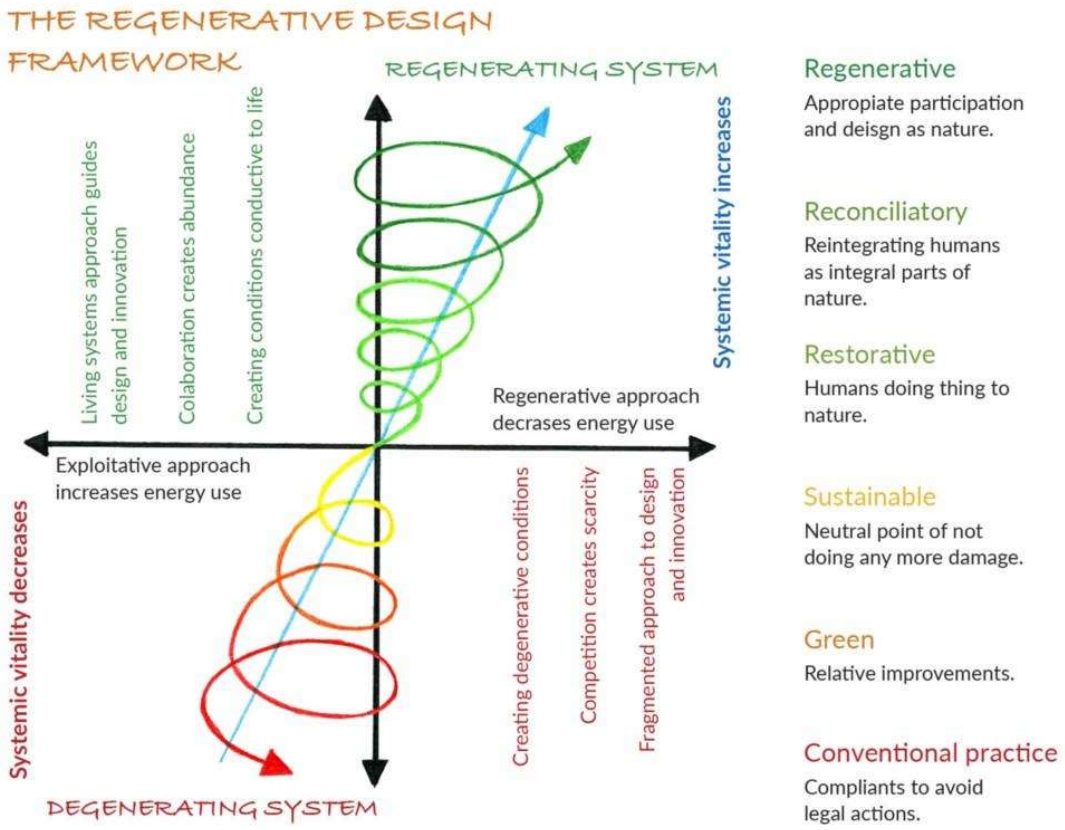

Image 4: The Regenerative Design Framework (Wahl, 2016, adapted from Reed, 2007)

The regenerative model proposes that the human impact on the environment does not need to be negative. In fact, regenerative human activity could actually trigger a development that accelerates the restoration of the biosphere. Regenerative development could even reach a point where human development merges with the evolutionary process of nature, generating new balanced ecosystems which could increase the complexity and diversity of a biosphere and which could become implicitly interrelated with human development.

This type of development is known as regenerative development, and reconciles technological capacity[1] and natural evolution. By doing so, regenerative development places people as custodians of their local territories and of the planet, instead of proprietors, extractors and managers of its resources.

[1] Technological capacity in this case is understood as the capacity to co-design and co-create with the natural world, from the Greek root «Tekne», and is not understood as an industrial or engineering capacity.

4.3 “We Land” regenerative development model and SDGs

In order to implement this new regenerative paradigm at the territorial level, tools of collective inquiry are needed. This is where Community Catalysts come in to play. The researcher and member of Orla Design, Hugo Oliveira, has co-developed a regenerative model called “We Land”, which will be tested throughout this project in order explore its transformative potential at a territorial level (http://weland.design).

The We Land model proposes a process based on qualitative indicators, and allows the researchers and participants to delve into concepts such as identity, feelings of belonging, human nature and ecosystem services. These are the basic parameters needed to generate development in balance with the environment. Such a qualitative model complements quantitative models, which are functional and useful for technocratic purposes, despite lacking the ability to understand and co-create a human development process capable of managing the complexity that is intrinsic to life, to the biosphere and to the human species.

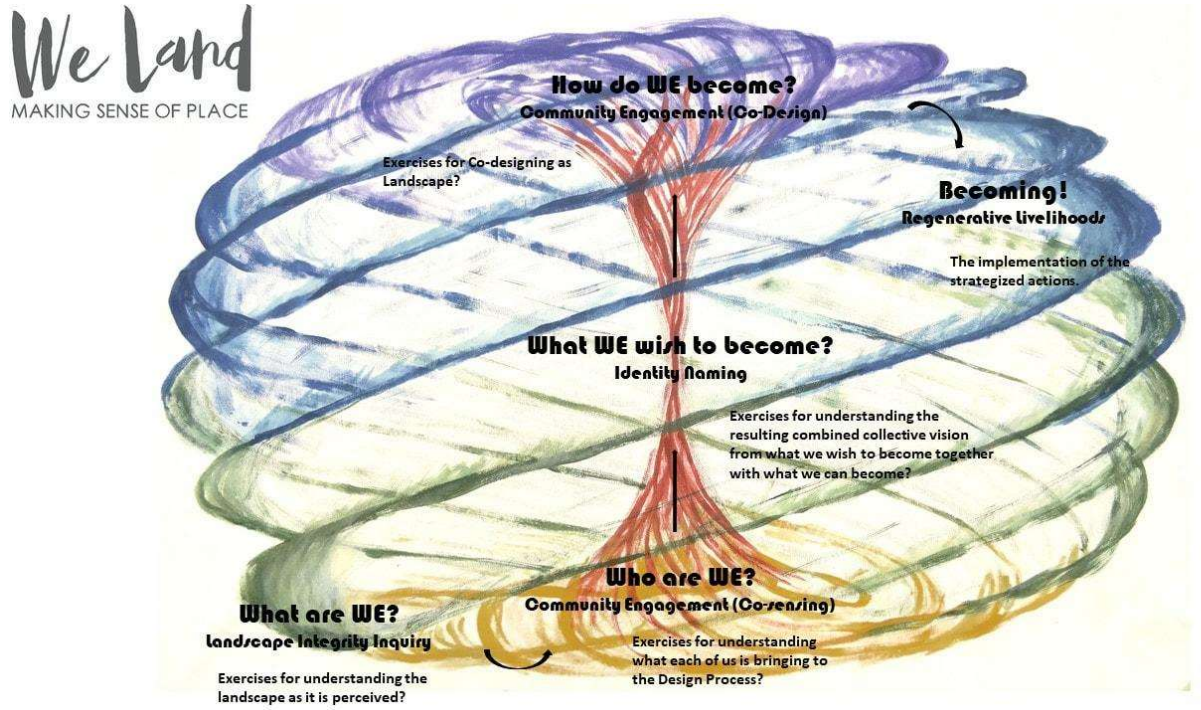

Image 5: The We Land model (Oliveira, et al, 2018)

4.4 SDGs and systemic frameworks of regeneration and resilience

The Community Catalysts team believes that We Land has the potential to become a collective inquiry tool ideal for the implementation of regenerative development at the local level. At the same time, we realize the need for cross-cutting quantitative indicators that allow for intercultural dialogue between the different rural communities in which it can be implemented. For this reason, we believe that the use of United Nation’s Sustainable Development Goals (SDGs) (see Image 6) can give a universally-agreed framework that lends legitimacy to intercultural exchange. We are aware that a United Nations framework should be as generic as possible in order to adoption and local adaption to the 193 signatory nations.

This is why we have decided to take a regenerative interpretation of the SDGs, since it allows us to develop the project with a stronger theoretical basis. This framework is what is known as the "Wedding Cake" of the Stockholm Resilience Center in Sweden, which is considered one of the world's leading reference in resilience thinking (see Image 7).

Image 6: Sustainable Development Goals (United Nations, 2015)

Resilience is a complementary framework to regeneration, both of which are systemic frameworks. Regeneration focuses on the increase in the complexity of a system, whereas resilience focuses on its adaptive capacity. Both processes are intimately related, but they become two very useful faces of the same prism.

- **Regeneration** can accompany the development process, promoting positive human impact on a territory, restoring and regenerating the natural environment in close relationship with human development.
- **Resilience** can accompany change management, promoting learning from the changing context so that communities can follow a qualitative process of continuous improvement, increasing their complexity and adaptation to the environment that encompasses them.

In summary, this research process uses We Land as its regenerative model, which allows us to implement regenerative development at a territorial level. This tool is framed within an international model with broad legitimacy that allows an intercultural dialogue – the UN SDGs wedding cake.

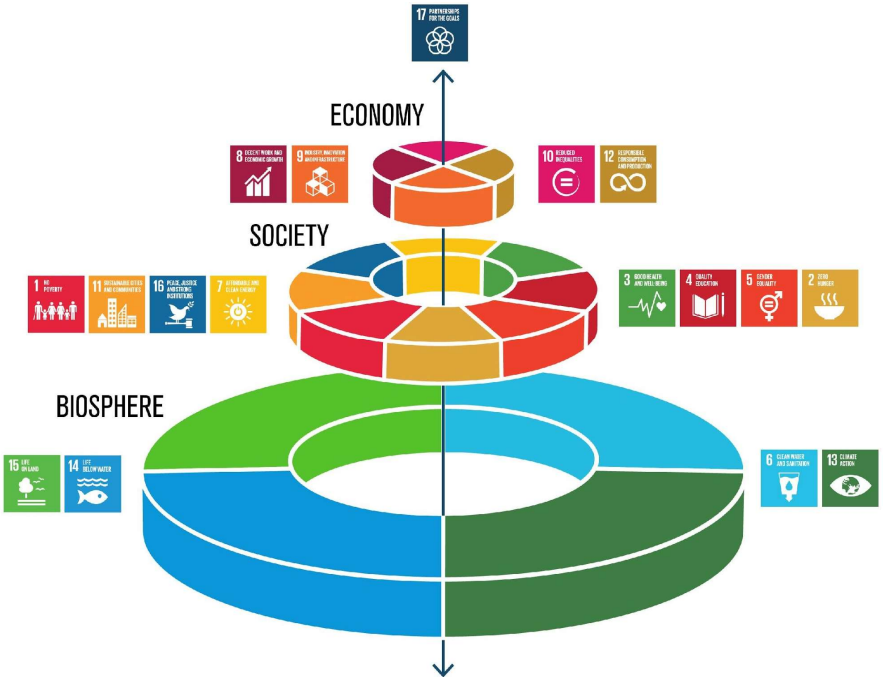

Image 7: Sustainable Development Goals according to the Stockholm Resilience Centre (Rockström & S, 2016)

4.5 Ecosystems services, critical yeast and structural violence

A new systemic framework that is garnering popularity at the technical level is Ecosystems Services, as it helps communities evaluate the value and impact of the natural environment using quantitative and qualitative criteria. This framework defines and categorizes the importance of nature for humans in different areas, including the less materialistic ones (see Image 8).

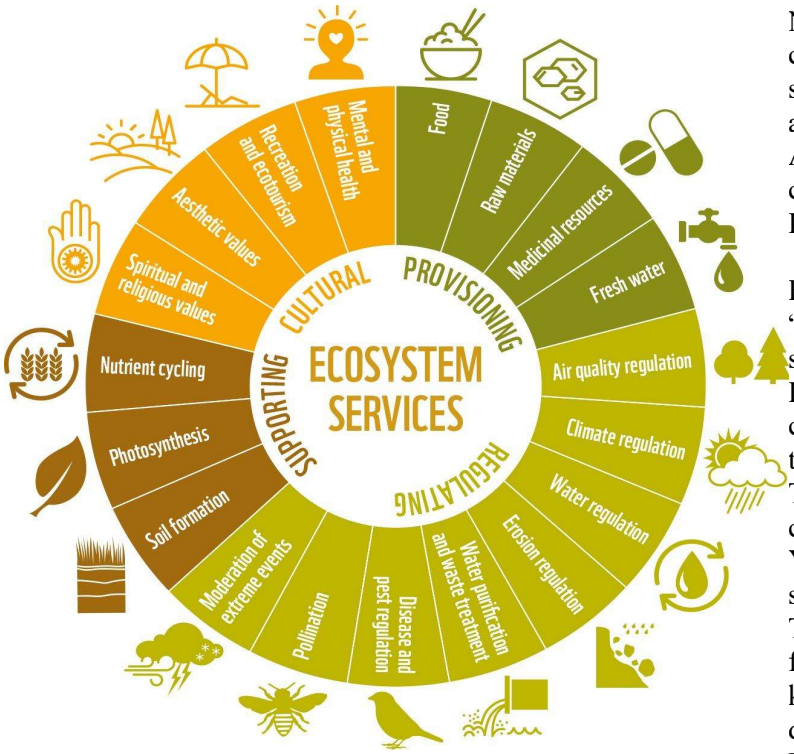

Image 8: Ecosystem services analysis framework

Nonetheless, there is still a lack of tools consistent with the above-mentioned systemic frameworks; tools which could allow us to generate a local Participatory Action Research capable of extracting the community patterns we need to test the We Land model, and deepen it if necessary.

For this reason, we integrate the concept of "critical yeast" (Lederach, 2005) and structural violence (Galtung, 2000). Lederach states that the main purpose of catalysing of change at community level is to overcome the structural violence of Theory X (see Image 10) and allow for community development based on Theory Y. For community transformation, you can start with a very small number of people. These people are not an arbitrary group from the community, but rather they are key people with leadership roles in different community subsystems (see Image 9).

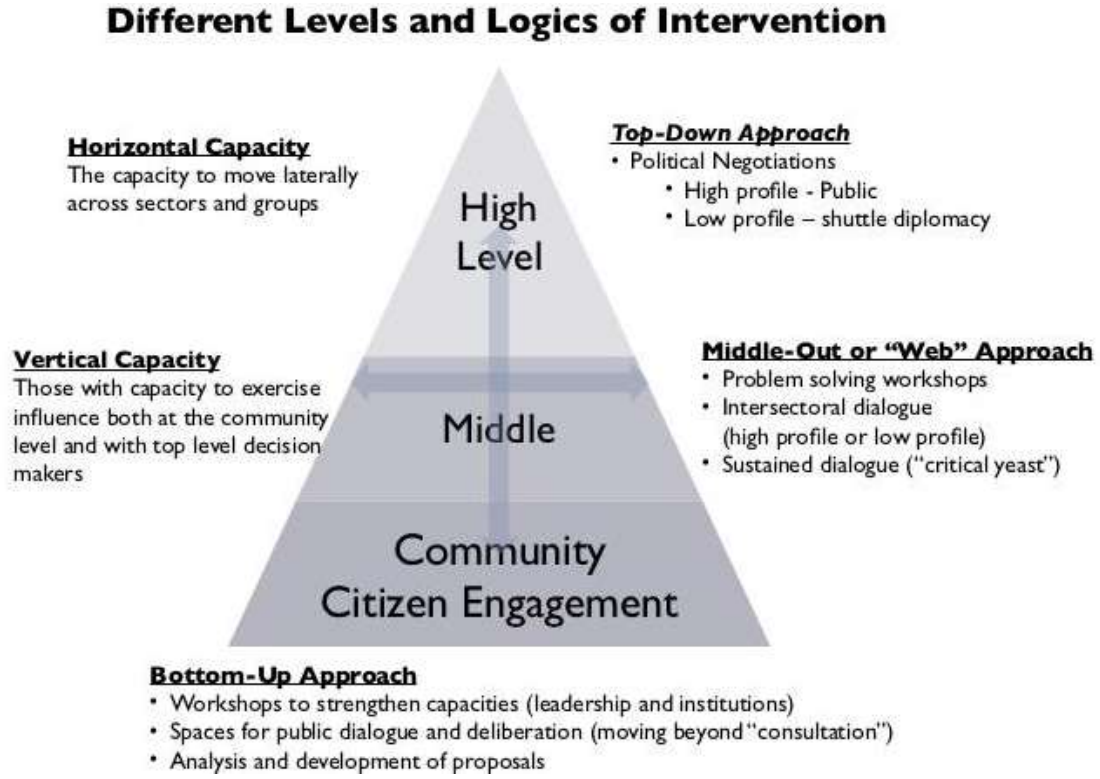

Image 9: Community intervention and engagement (Lederach, 2011)

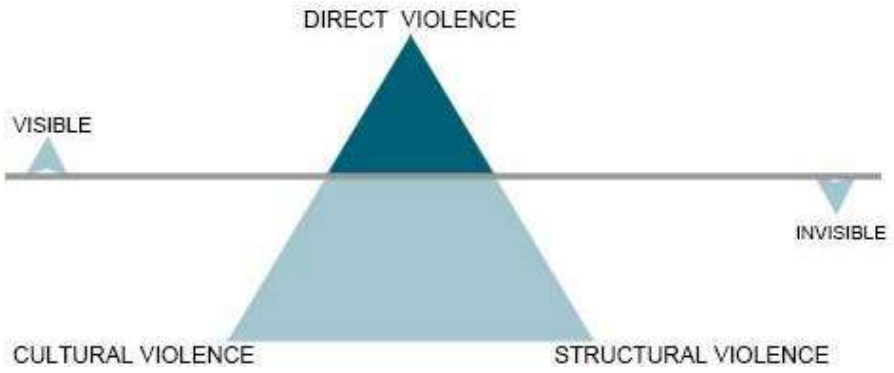

Image 10: The Violence Triangle (Galtung, 2000)

4.6 "We Relations" community resilience model and community catalyst roles

In order to select interview participants that represent a diverse cross-section of community catalysts, members of the Resilience Earth cooperative, Erika Zárate and Oscar Gussinyer, have developed a model called We Relations (Zárate, 2014), which is based on the Iceberg of Systemic Transformation model (see Image 11) developed by Peter Senge (Senge, 2014) and based on Donnella Meadows work on leverage points (Meadows, 2009). The We Relations model is also inspired by the Medicine Wheel of the Haudenausaune Nation (see Image 12), from what is known geopolitically as the state of New York, USA and the province of Ontario, Canada. The medicinal wheel represents a Kosmovision (Panikkar, 2003), rooted in relationship to the land and shared by hundreds of Indigenous nations around the globe.

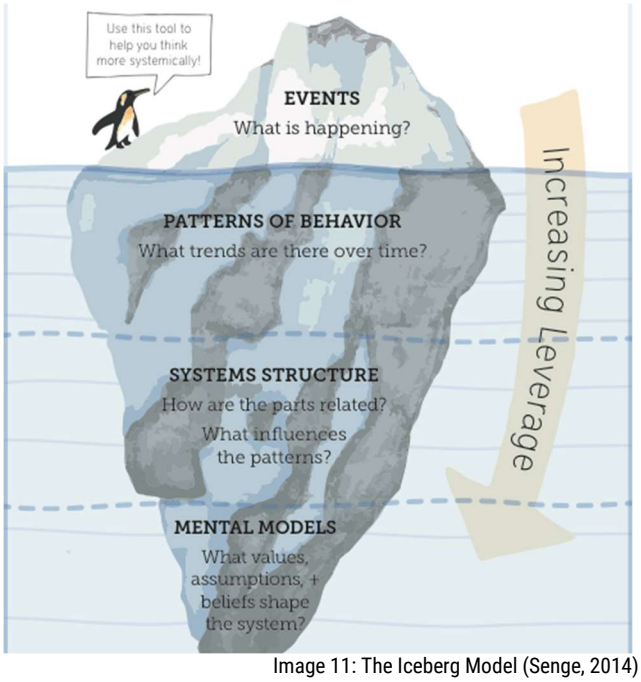

Image 11: The Iceberg Model (Senge, 2014)

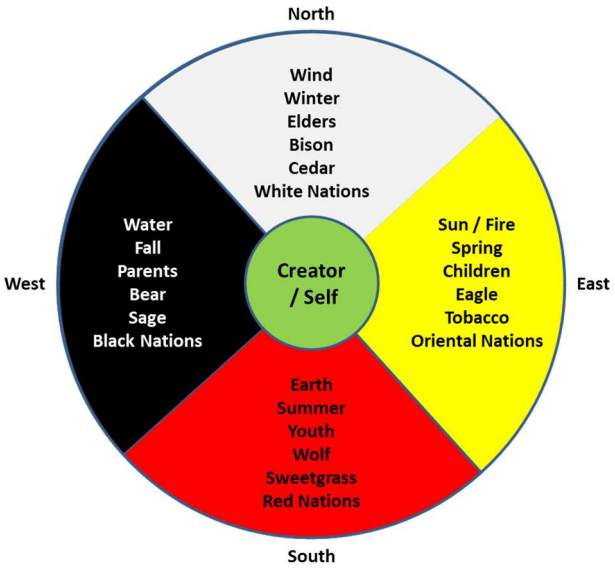

Image 12: The Haudenosaunee Medicine Wheel (Longboat, 2003)

The We Relations is a systemic model that defines the relationships of a community based on their patterns, hierarchized through the iceberg model. It allows us to identify leverage points that can catalyze a community towards an emerging equilibrium, which is the basis of regenerative development (see Image 13). We Relations identifies specific community roles within and between each of the four main sectors. These roles are related to the Enneagram, a model used by Gestalt psychology to identify personality patterns. The original Enneagram (see Image 14) is based on people at the individual level and in this case has been applied at the community level. Additionally, Nobel laureate Manfred Max-Neef speaks of "satisfactors" to identify human needs (see Image 15). With these additional models, we can better identify both community roles and community needs in the human

development process. This has allowed us to define 10 community roles, which together form the critical yeast for community transformation. Due to their community roles, this group of people is able to mobilize the critical mass, which is defined as 11% of the population of a system.

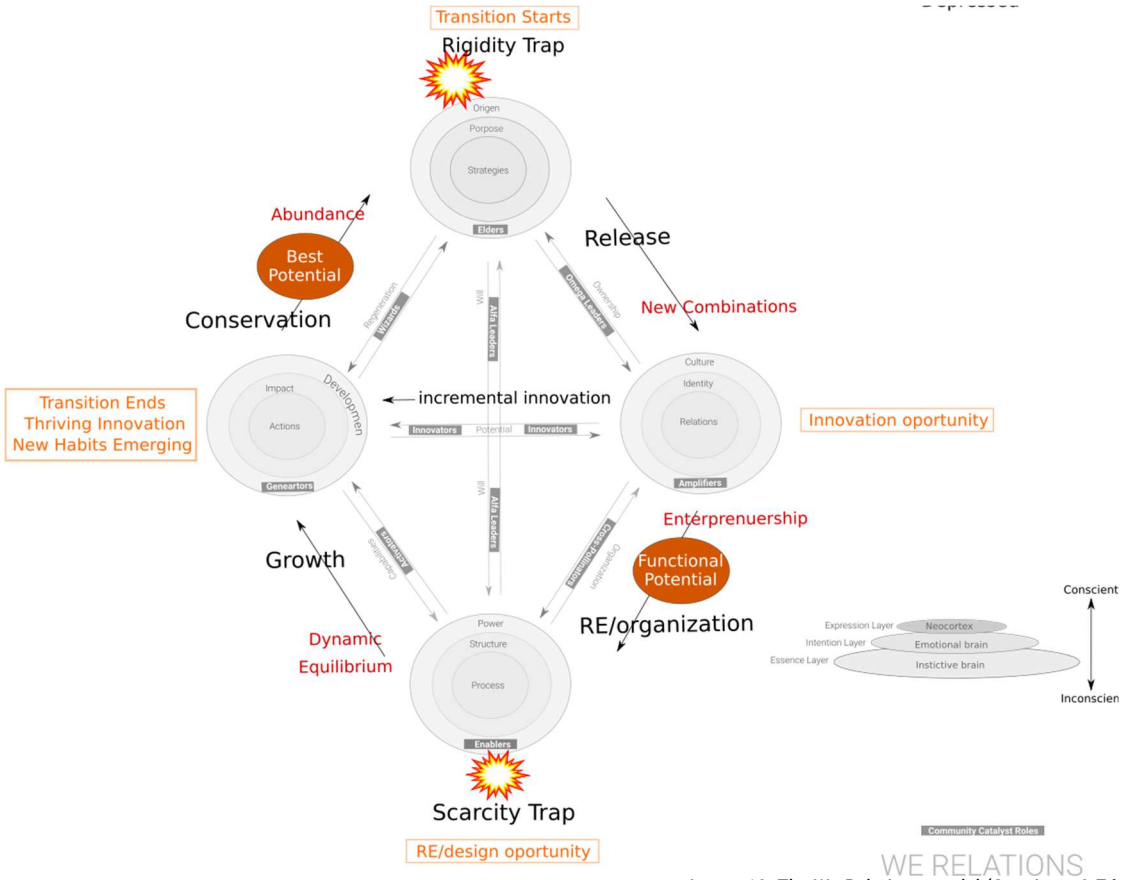

Image 13: The We Relations model (Gussinyer & Zárate, 2019)

In conclusion, by being able to identify and catalyze the critical yeast through the We Relations, we should be able to catalyze the critical mass through the We Land. This should allow to generate a cultural change towards the regenerative development of a territory.

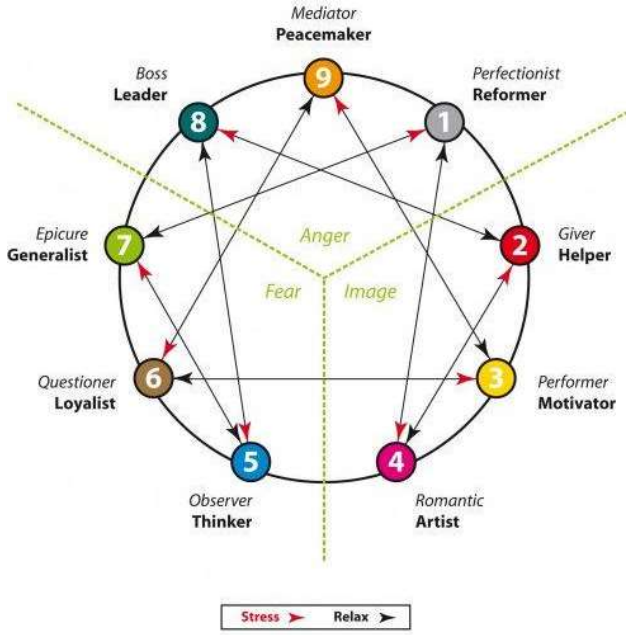

Image 14: The Enneagram (Naranjo, 1995)

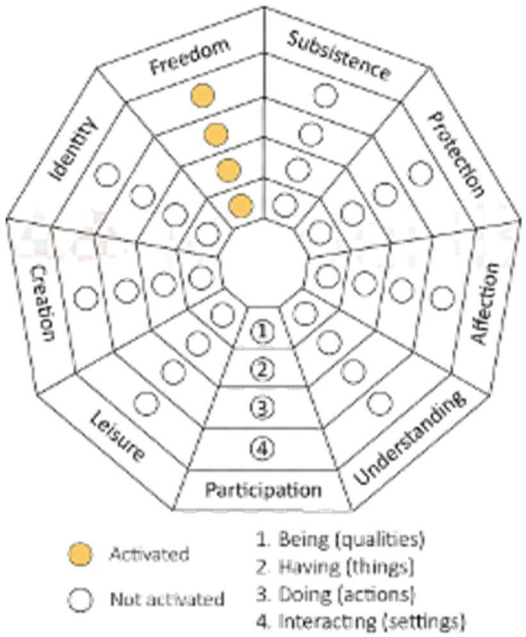

Image 15: Human Needs Satisfier web (Max-Neef, 1999)

5. Methodology

5.1 Selection of four case studies of peripheral Europe

This project has defined its area of work with the concept of the "margins". In hierarchical and centralized systems, margins are generated, in which the system is not able to act upon. The margins remain at the periphery of the social hierarchy and generally are characterised by more precariousness compared to the centre of the system. The VUCA context is more accentuated in the margins, and these regions are valued by the system mostly because of the resources that they to contribute to the central zones.

On the contrary, from a systemic perspective the marginal areas represent areas with high development potential, as the rigidity of structural violence is not so forceful here, leaving room for creativity and emergence of natural patterns.

For this reason, at the beginning of the Community Catalyst project, we selected partners from regions that meet the following criteria:

- They form part of the peripheral countries of the European Union
- They form part of the marginal areas in their own country
- They are part of a clear and singular bio-region
- They belong to a unique and peripheral culture
- They are not from an area majorly affected by exploitation, which would limit the implementation of regenerative development projects due to lack of resources

The four regions that meet the above criteria are:

1. **Pollina and Castelbuono, Madonie Park** Sicily, ITALY — **A rural insular region.** This case presents a region that speaks its own dialect and has an ancient and unique culture. It is a clearly peripheral zone, but at the same time has capacity for response.
2. **Barlavento Algarvio, Algarve** PORTUGAL — **A rural Atlantic coastal region.** This case presents a region with a unique and millennial history, and which is at the eastern end of Europe. It has developed an economy based on dried fruit, fishing and tourism.
3. **Ág** HUNGARY — **A rural continental region, part of the Great European Plain.** This case presents Roma communities which have their own ancient and unique language and culture, and represent one of the most marginalized cultures in Europe.
4. **La Garrotxa** Girona, SPAIN — **A rural Mediterranean alpine region.** This case presents a rural mountain region that speaks Catalan, a language not recognized by the European Union. It has a unique history and a sufficiently active, but not long-term, economy.

5.2 Design of the Participatory Action Research process

The research team considered it important to generate as structured a Participatory Action Research (PAR) process possible, taking into account that we had to work in four different cultural regions with distinct languages. We also prioritized a process that would help us achieve our goals and which could be done with deep interviews lasting between 60 and 120 minutes. Another important consideration in the PAR process was how to integrate the four SDGs of the Biosphere layer into the research process. The four SDGs related to the biosphere, and integrated into the PAR, are:

Through several online research design meetings between the four regional partners, all these factors were taken into consideration, and the following research phases were agreed and carried out.

PHASE 1: SELECTION OF PARTICIPANTS REPRESENTING THE CRITICAL YEAST

The selection of the ecological scope of community members that represent critical yeast was based on the roles established in the We Relations, which has connections to the profiles of the Gestalt Enneagram.

Elders A member of the community that is a reference for being an elder and capable of sustaining the history of the place. Someone widely respected. A person that is calm and that can mediate conflict, sometimes they are conformists in that they prefer the things to stay the same to avoid conflict.
(9 in the enneagram)

Alpha leader A person that is a clear leader, and who people have as a community reference. They are capable of organizing the community. In many cases, they could be a politician or someone publicly known. They may be dominant and proud, and could be someone who is controlling or someone who generously considers the whole community in their decisions.
(8 in the enneagram)

Omega leader A person who leads in the background, and who is perhaps not as known. They are often related to social and solidarity economy. They are generally respected by those inside their community. They are very busy people and tend to have a good sense of humour or an attractive quality to others. They can be superficial or generous and committed to the community.
(7 in the enneagram)

Amplifier A person that is active in the local economy, and could be a worker or a self-employed person. They tend to be very responsible people and hard workers. They can be insecure, with low self esteem, or independent and committed to help the people with less privilege.
(6 in the enneagram)

Innovator Someone known as a creative person who is capable of generating money or that through creativity, while helping the community. This could be someone related to new technologies. Normally, they are very mental people, and considered intelligent. They can be nervous people and antisocial, but they also can be visionaries, bringing new perspectives to others.
(5 in the enneagram)

Cross pollinator Someone who knows a lot of people in the community, even people from different cultural groups or social classes, while also knowing influential people. They could be

	from the private sector, or social sector or from an activist community. They are workaholics, very self assured and they can be opportunistic or very authentic and an inspiration for others. (3 in the enneagram)
Enabler	A person that has power in the community and is capable of making things happen or stopping them from happening. Normally, this is someone working in public administration as a technician. They can be very organized people, knowledgeable and aware of what works and what does not work for community development. They can be impatient and perfectionist or wise and noble. (1 in the enneagram)
Activadores	A person who works to distribute power and to create space for the people at the bottom of the social pyramid. It could be someone working in an NGO. They can be emphatic and compassionate, but sometimes they are not really aware of their own needs, or they can be very generous and with unconditional love to themselves and others. (2 in the enneagram)
Generator	A person who starts new things that did not exist before. Someone with a lot of energy and who wants to change things, and who is really propositive. This could be someone from a startup or an activist. They can be sensible and somewhat reserved. They could be self-indulgent or very creative and capable of generating change. (4 in the enneagram)
Wizard	A person that looks beyond, and who is maybe not understood in the community, but who is nonetheless trying to bring balance. Someone who thinks outside the box, but who does not get stuck on one side. They could appear to be a cross pollinator, but the cross pollinator looks more to the people who have influence, and the wizard looks beyond the power. (this role is not expressed in the enneagram)

By selecting a minimum of one community catalyst per role, the final group of research participants for each region was able to be highly plural and heterogeneous, and specifically in the field of the biosphere. Each interviewee demonstrated clear leadership characteristics at different levels and in different aspects.

PHASE 2: INTERVIEWS

The interviews were designed taking into account the following criteria:

- **Environmental conditions:** Our culture is separated from nature and passes most of the time in clearly urban situations, which affects our behaviour and ability to enhance our abstract and rational thinking. We considered that in order to answer these questions with more sensitivity and depth, it was important to contextualise the interview appropriately, so we proposed that interviews were carried out in spaces that the person valued at the personal level.

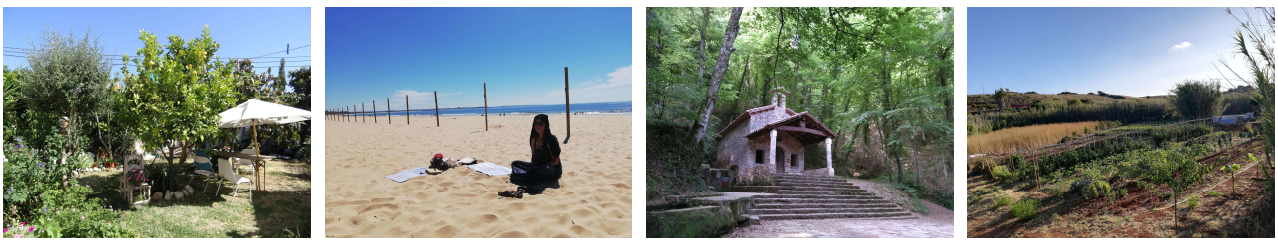

Image 16: Examples of places of interviews with significance and inspiration to the interviewees (Orla Design & Resilience Earth, 2019)

- **The framework of the interview:** In order to conduct agile interviews, we prioritized the creation of a canvas that "gamified" interviews to make them less rational. This is why we used systemic design criteria, where the person interviewed could physically position the goals of each SDG in a space based on its state of equilibrium at the regional level. The three categories were balanced, unbalanced and emergency. We also used graphic design criteria to make it more clear at the level of color coding. The framing of the canvas was not like a conventional canvas, which can often be very rational and lead to abstraction.

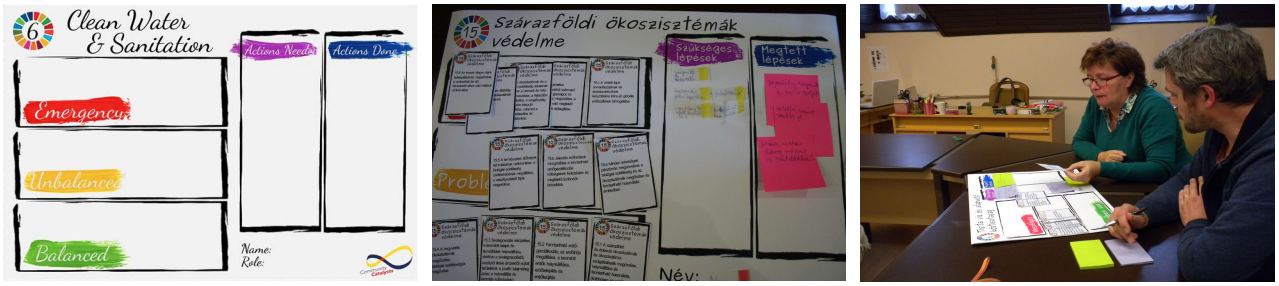

Image 17: Example of the interview canvas in use (Profilantrop, 2019)

- **Easy to manage:** Each interviewee filled out four canvases, one per Biosphere SDG. Each region completed between 9 and 13 interviews, which resulted in 184 canvases to analyze. The research process was designed in order to minimize the disordering of canvasses, which would have been problematic at a data management level. Every researcher took photos of the canvasses and the location of the interviews and emailed these photos to the research coordinator. They also filled out an online table with the raw data, in order to facilitate the analysis process.

The interview guide was very simple so as not to overwhelm the interviewee with too many rational structures:

INTERVIEW GUIDE

1. Place the cards of the SDG targets in the box that you consider most relevant based on their state of balance in your region.
2. What do you think are the actions that need to be made in your region with respect to this SDG?
3. What do you think are the actions that have been made in your region with respect to this SDG?
4. Repeat the first three steps for the other three SDGs.

PHASE 3: PARTICIPATORY COMMUNITY SESSIONS

Two of the four partners carried out participatory community meetings in order collectively validate the results of the interviews publicly and in order to deepen the analysis of the results. The outline of the community sessions varied, following the general session plan:

0:00	Welcome and presentation of the community meeting agenda and objectives
0:15	Introduction game between participants
0:45	Presentation of the results through «gamification» in which participants engage with the results and add, change and/or validate them
3:00	Closing of the community session

In one of the case studies the involvement of the local community happened thanks to a group of young people in the interviews phase itself. A path that begun with two training session: on the themes and practices of the project; and a simulation of the interviews by the group. This gave the chance to test the canvases and the cards with the aim of creating a debate amongst the people involved on the Biosphere SDGs.

Image 18: The community meeting in action in Barlavento Algarvio, Algarve (Orla Design, 2019)

PHASE 4: COLLECTION AND ANALYSIS OF DATA

In order to carry out this phase of the PAR, a data table was designed that could to allow us to work quantitatively as well as qualitatively with the results of the PAR of all 184 canvasses of the four regions. The research team members inputted the raw data of the interview results into a generic table (see Images 18 – 21), which calculated the results using the following scheme related to the SDG canvas:

- 0 = balanced
- 1 = unbalanced
- 2 = state of emergency
- x = not considered relevant

The average per SDG was calculated as a number between 0 and 2 in order to correspond to the original calculation scheme. The average takes into consideration the average of the targets answered, and is then multiplied by the percentage of respondents that considered the target relevant in order to give a relative and objective average rate.

6. Findings and Discussion

In the context of communities and nations declaring climate emergency, along with the European Union and the United Nations planning for major climate mitigation before 2030, the objective of this Participatory Action Research (PAR) is not to assess the environmental situation of the biosphere of the four case study regions. Rather, the objective is to assess community awareness about the implications of the global crisis at the local level, and how these implications affect local identity. Local community identity is understood as the basis of social community behavior, individual habits and finally environmental impacts. This research leads us to better understand the response capacity of the community based on the structural violence it suffers and consequently its territorial resilience and regenerative capacity.

We will present the results in their raw form, so that at the next transnational meeting in September 2019 in Hungary the whole research team can collectively analyse the implications of the PAR results and how they can best inform the next phases of the project.

Each regional case study and the collective results contain a table that outlines the main SDG targets that the interviewees prioritise in terms of next steps. The size of the SDGs correspond to their level of overall priority, with the largest SDG being the main priority, the second largest SDG being the second priority, and so forth. The colour code for the individual targets in Tables 2, 3, 4, 5 and 6 are:

- red: targets that classified as in a state of emergency, having scored equal to or higher than 1.50 (call to action)
- yellow: targets that are classified as out of balance, having scored equal to or higher than 1.00 (significant warning)
- green: targets that are classified as in balance, having scored less than 1.00

In order to be able to compare internally as well as between the case studies, we also took into consideration the top 10 indicators to determine priority for action, and have placed the numbers 1 through to 10 beside the corresponding targets.

The second table presented for each regional case study contains the raw data of the interview results, with the following calculations:

- 0 = balanced
- 1 = unbalanced
- 2 = state of emergency
- x = not considered relevant

The average calculated is a number between 0 and 2, and takes into consideration the average of the targets answered, and is then multiplied by the percentage of respondents that considered the target relevant in order to give a relative and objective average rate
.

6.1 Ág, North Baranya case study

	6.1 Save and affordable drinking water	7	13.1 Strengthen resilience and adaptative capacity to climate related disasters	1	14.1 Reduce marine pollution		15.1 Conserve and restore terrestrial and freshwater ecosystems
2	6.2 End open defecation and provide access to sanitation and hygiene		13.2 Integrate climate change measures into policiies and planning	5	14.2 Protect and resotre ecosystems		15.2 End deforestation and restore degraded forests
6	6.3 Improve water quality, safe reuse & wastewater treatment		13.3 Build knowledge and capacity to meet climate change		14.3 Reduce ocean acidification		15.3 End desertification and restore degraded land
	6.4 Increase water-use efficiency & ensure freshwater supplies		13.A Implement the UN framework convention on climate change	9	14.4 Promote sustainable fishing		15.4 Ensure conservation of mountain ecosystems
	6.5 Implement integrated water resources management		13.B Promote mechanisms to raise capacity for planning and management		14.5 Conserve Coastal and Marine Areas	3	15.5 Protect biodiversity and natural habitats
10	6.6 Protect and restore water-related ecosystems				14.6 End Subsidies contributing to overfishing		15.6 Promote acces to genetic resources and fair sharing of the benefits
	6.A Expand water and sanitation support to developing countries				14.7 Increase the economic benefits from sustainable use of marine resources		15.7 Eliminate poaching and trafficking of protected species
4	6.B Support local engagement in water and sanitation management				14.A. Increase scientific knowledge, research and technology for ocean health		15.8 Prevent invasive alien species on land and in water ecosystems
					14.B. Support small scale fishers		15.9 Integrate ecosystem and biodiversity on goverrnmental planning
					14.C. Implement and enforce international sea law		15.A Increase financial resources to conserve and sustainably use ecosystem & biodiversity
							15.B Finance and incentivise sustainable forest management
						8	15.C Combat global poaching and trafficking

Table 2: Prioritisation of SDGs in Ecséd, Hungary (Profilantrop Association, 2019)

HUNGARY	Codes:	0 = balanced; 1 = unbalanced; 2 = danger; x = not placed on canvas (It can be also: 0,5 = between balanced and unbalanced; 1,5 = between unbalanced and danger)																																
#		6.1	6.2	6.3	6.4	6.5	6.6	6.a	6.b	13.1	13.2	13.3	13.a	13.b	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.a	14.b	14.c	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	15.a	15.b	15.c
1		1	2	2	1	2	2	x	2	2	2	x	x	x	2	2	2	2	1	1	1	1	x	x					1	2	2	2	2	1	1	2
2		1	2	2	2	2	1	1	2	2	1	1	x	2	2	1	1	2	x	2	1	1	2	2	1		2	1	2	2	2	1	2	1	1	1
3		2	2	2	1	1		1	2	1	2		2	1	2	1	2	2	2	2	2	1	2		1				2	2	1	1	2	1		2
4		2	2	1	2	1	2	1	1	1	1	x	1	x	2	2	1	x	1	2	2	1	1	2	2	1	1	1	2	2	2	1	2	2	1	2
5		1	1	2	2	2	2	1	1	1	1	1	x	1	2	2	2	1	2	1	1	1	2	1	1	2	1	1	2	1	1	1	1	1	2	2
6				1	1		1	x	1	1	2	1	x	x	2	x	1	2	x	x	1	1	2	2	1	2	2	1	2	1			1	1	1		
7		1	1				1	x	1	1	1	1	x	x		x	x	x	x	x	x	x	x	x									x	1	x	x
8		0,5	1	0,5			1		0,5				x	x	1	1	x	x	x	x	x	x	x	x	1	1	1	1	1,5	x	1,5	1	x			
9		1	1		0,5	1		1	1	1	1	1		1	2	2	2	1	1	1	1	1	2	1			1		0,5		1	2	1	1		2
10			2	1				1	1		x	0,5	x	x	2	1	1		x	x	1			0,5		2		0,5	1	x	0,5		1	1	0,5	x
11			1	1	1	1	1		1	2	x		x	1	2	2	2	2	1	1	1	1	x	1	1	2			1		1	1	x	x	1	1
12		1	1	1	1	1	1	1,5	1,5	1,5	0,5	1	x	1	1,5	1	0,5	1	0,5	x	1	0,5	x	0,5	1	1,5	1	0,5	1	1		0,5		1	0,5	1,5
	Total	10,5	16	13,5	11,5	11	12	7,5	15	13,5	11,5	6,5	3	7	20,5	15	14,5	13	8,5	10	12	8,5	11	10	9	11,5	9	6	16	11	12	10,5	12	11	8	13,5
	AVG (when placed)	0,88	1,33	1,13	0,96	0,92	1,00	0,63	1,25	1,13	0,96	0,54	0,25	0,58	1,71	1,25	1,21	1,08	0,71	0,83	1,00	0,71	0,92	0,83	0,75	0,96	0,75	0,50	1,33	0,92	1,00	0,88	1,00	0,92	0,67	1,13
	Count of:																																			
	Not placed							3			2	2	9	6		2	2	3	5	5	2	2	5	3						2			3	1	1	2
	Balanced	4	1	3	4	4	3	2	1	2	2	4	1		1		1	1	1			2	1	3	4	5	5	7	2	3	4	4	1	1	5	2
	Unbalanced	7	6	6	6	5	6	6	8	6	6	7	1	5	1	5	5	3	5	4	8	9	1	5	7	2	5	7	5	3	5	7	4	9	7	2
	Danger	2	5	4	3	3	3	1	4	4	3		1	1	10	5	5	5	2	3	2		5	3	1	5	2		6	4	4	2	4	1	1	6

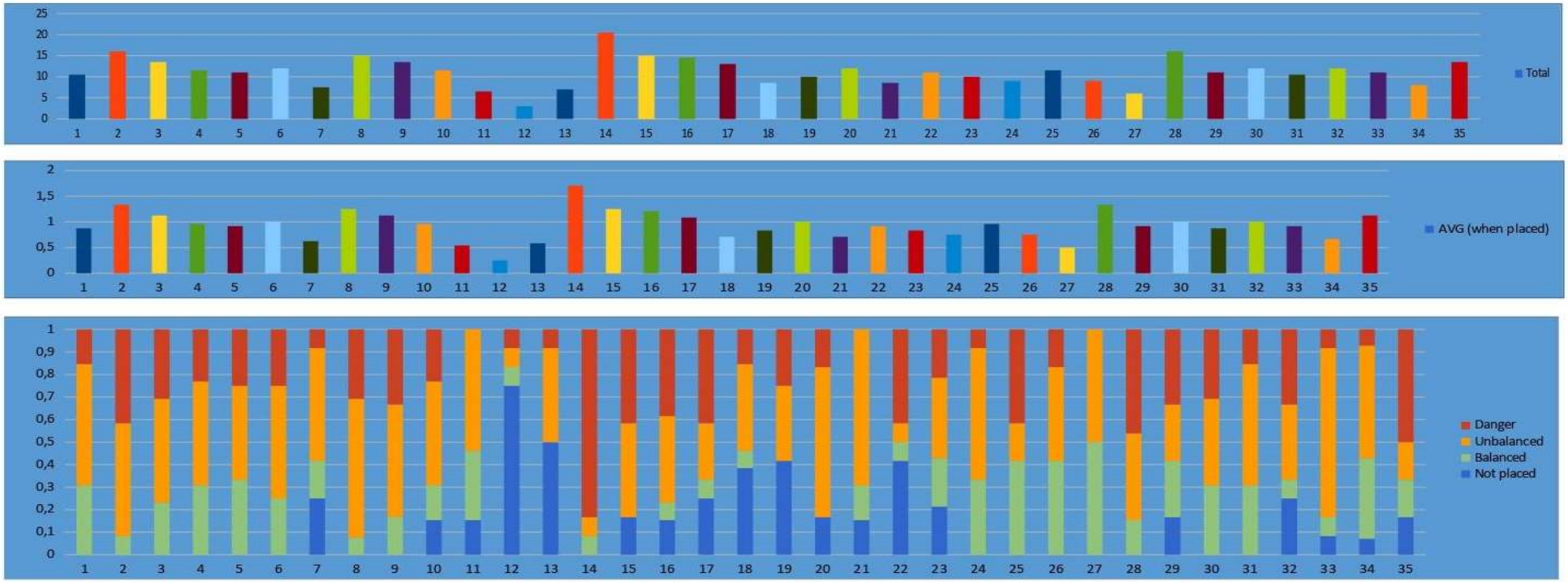

Image 19: Graphic results of the PAR process in Ecséd, Hungary (Profilantrop Association, 2019)

DISCUSSION OF RESULTS

The results of the interviews conducted at Ecsed show clearly a great concern for the regulatory ecosystem services, which have direct implications for people's well being. In terms of human needs, we could say this is a community concerned about its subsistence satisfactors, which implies they are affected by higher structural violence than other communities that could respond to interviews with different criteria.

SDG 6 is, according to the participants, in a state of greater fragility, which has direct implications on the welfare and subsistence of the community. Curiously, SDG number 13 is the second concern of the Ecsed community, despite being on the mainland; this is a specific point that we will have to investigate more deeply at the next Budapest meeting.

In third position is SDG 15, which makes sense given that we are talking about a country that is considered to be in a natural state in relative balance, probably due to the decrease of resources and human development of the last decades, although United Nations is warning that this trend is changing and human development in Hungary is starting to affect ecosystem services.

Finally, SDG 13, which refers to climate change. Hungary is a country has continental climate, but it is one of the countries in East Central Europe suffers the most the current impact of climate change - the average temperature has increased dramatically, desertification- , and this clearly affects the perception of the community.

HIGHLIGHTS FROM INTERVIEWS AND COMMUNITY FORUM

Major threats/challenges (From the SWOT)

1. Because the lack of information it is difficult to involve people, increase community participation
2. Manpower is in bad condition
3. Deficits in infrastructure, transport, causing isolation
4. Big territorial differences in education, competency and preparedness of teachers
5. Outward migration from the village, aging community
6. Predominantly money-oriented mindset
7. Purposelessness among youth
8. Lack of goals
9. Lack of community places
10. Economic constraints
11. Lack of information
12. The launching and flourishing of local production is hindered by monopolistic systems
13. Politics - unpredictability, vulnerability

Major needs (Actions needed)

- Inform and educate the youth and the adults about the environmental issues combined with showing practical solutions
- Locally produced products to be sold on the farmers market of the nearby cities or in a community-supported agriculture model
- Water reserves at community or family level
- Utilization of water of the floods
- Conscious agriculture, improving the soil, ecological soil cultivation
- Decentralised sewage water treatment plant realized by a cooperation of four neighboring villages

Good practices (Actions done)

1. In many cases the problems are identified and recognised
2. The physical infrastructure of the selective waste collection, the bins themselves are available
3. 2 nature parks, including 9 settlements
4. Warning signs in public spaces
5. There are elements already included in the education which serve the changing of attitudes
6. Agrobotanical project in a nearby city

6.2 Pollina and Castelbuono, Madonie Park case study

	6.1 Save and affordable drinking water
	6.2 End open defecation and provide access to sanitation and hygiene
	6.3 Improve water quality, safe reuse & wastewater treatment
	6.4 Increase water-use efficiency & ensure freshwater supplies
7	**6.5 Implement integrated water resources management**
	6.6 Protect and restore water-related ecosystems
2	**6.A Expand water and sanitation support to developing countries**
8	**6.B Support local engagement in water and sanitation management**

5	**13.1 Strengthen resilience and adaptative capacity to climate related disasters**
10	**13.2 Integrate climate change measures into policiies and planning**
3	**13.3 Build knowledge and capacity to meet climate change**
1	**13.A Implement the UN framework convention on climate change**
	13.B Promote mechanisms to raise capacity for planning and management

	14.1 Reduce marine pollution
9	**14.2 Protect and resotre ecosystems**
	14.3 Reduce ocean acidification
	14.4 Promote sustainable fishing
	14.5 Conserve Coastal and Marine Areas
	14.6 End Subsidies contributing to overfishing
	14.7 Increase the economic benefits from sustainable use of marine resources
	14.A. Increase scientific knowledge, research and technology for ocean health
	14.B. Support small scale fishers
	14.C. Implement and enforce international sea law

	15.1 Conserve and restore terrestrial and freshwater ecosystems
	15.2 End deforestation and restore degraded forests
6	**15.3 End desertification and restore degraded land**
	15.4 Ensure conservation of mountain ecosystems
	15.5 Protect biodiversity and natural habitats
	15.6 Promote acces to genetic resources and fair sharing of the benefits
	15.7 Eliminate poaching and trafficking of protected species
4	**15.8 Prevent invasive alien species on land and in water ecosystems**
	15.9 Integrate ecosystem and biodiversity on goverrnmental planning
	15.A Increase financial resources to conserve and sustainably use ecosystem & biodiversity
	15.B Finance and incentivise sustainable forest management
	15.C Combat global poaching and trafficking

Table 3: Prioritisation of SDGs in Pollina and Castelbuono, Madonie Park, Sicily (Palma Nana, 2019)

ITALY	Codes:	0 = balanced; 1 = unbalanced; 2 = danger; x = not placed on canvas (It can be also: 0,5 = between balanced and unbalanced; 1,5 = between unbalanced and danger)																																		
#		6.1	6.2	6.3	6.4	6.5	6.6	6.a	6.b	13.1	13.2	13.3	13.a	13.b	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.a	14.b	14.c	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	15.a	15.b	15.c
1				x	x	1	x	2	1	2	x	2	2	1	x	2	x	2	x	x	x	x	x	x	x	2	2	x	x	x	x	x	x	x	x	x
2			1	1	1	1	1	1	1	1	0,5	1	1	1	1	1	x		1	x	1	1	1			2	1,5	1,5	x	x	2			2		x
3			1				2	2				1	2		1		2			1	1	1			1	1				1	1	1	2	1	2
4		1	2	2	1	2	1	2	1	2	2	2	2	2	1	2	2	1		2	1	2	1	2	2	2	2	1		1	2	1	1	1	2	2
5					1	1		1		1			1						1	1	1											2				
6		1	2	2		2	1		1	1	2	2	2	2	1	2	1	2	2	1	1	1		2	1	2	2	1	2	1	2	1		1	2	1
7				1				1	2	2		2				2	2				1	1		2	1	1					x	2			1	x
8		2		1	1	2		2	2	1	2	1	2	2	x	x	x	x	x	x	x	x	x	x	1		2		2	2		1	2		1	2
9			2	1	1	1	1	2	2	1	2	1	2		x	x	x	x	x	x	x	x	x	x	1		1		1	1		2	1	2			
Total		4	8	8	5	10	6	13	10	11	8,5	12	14	8	4	9	7	5	4	5	6	7	2	7	7	8	11	3,5	6,5	5	5	12	5	8	7	7
AVG (when placed)		0,44	0,89	0,89	0,56	1,11	0,67	1,44	1,11	1,22	0,94	1,33	1,56	0,89	0,44	1,00	0,78	0,56	0,44	0,56	0,67	0,78	0,22	0,78	0,78	0,89	1,22	0,39	0,72	0,56	0,56	1,33	0,56	0,89	0,78	0,78
Count of:																																				
Not placed				1	1		1				1				3	2	4	2	3	4	3	3	3	3	1			1	1	2	3	1	1	1	1	3
Balanced		6	4	2	3	2	3	1	2	1	4	1	1	4	2	2	1	4	3	1			4	2	2	4	3	5	4	3	3		4	3	3	2
Unbalanced		2	2	4	5	4	4	3	4	5	1	4	2	2	4	1	1	1	2	3	6	5	2	1	5	2	1	3	2	3	1	4	3	2	3	1
Danger		1	3	2		3	1	5	3	3	4	4	6	3		4	3	2	1	1		1		3	1	3	5	1	3	1	2	4	1	3	2	3

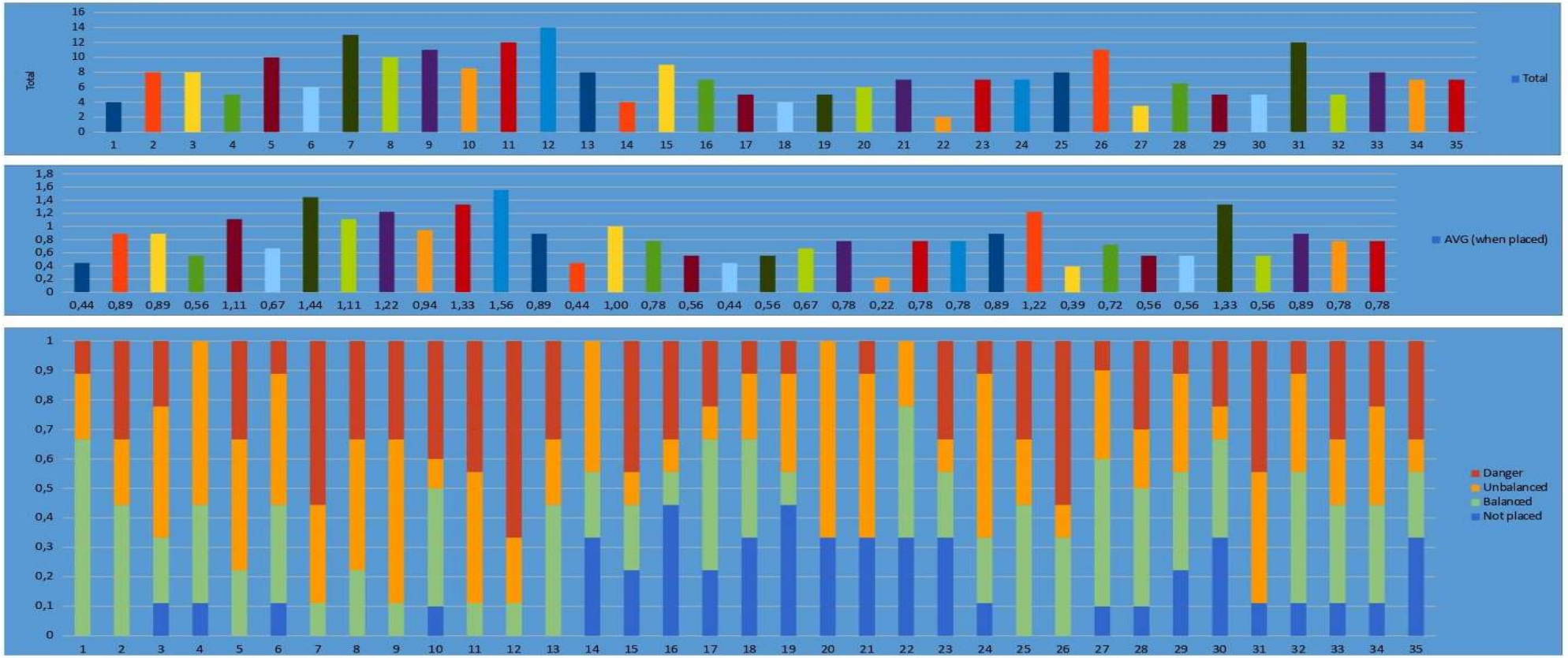

Image 20: Graphic results of the PAR process in Pollina and Castelbuono, Madonie Park, Sicily (Palma Nana, 2019)

DISCUSSION OF RESULTS

In the case study of Pollina and Castelbuono, Madonie Park on the island of Sicily, the interviewees prioritized SDG 13. Naturally, being an island in the Mediterranean, the impact of the temperature raise and its systemic consequences are much more visible and obvious.

The next prioritized SDG is number 6, but the most mentioned targets of this SDG are those related to clean water and sanitation. Sicily is part of Italy, one of the most developed countries in Europe, and although it is in the margins of this country, it enjoys human development in clean water and sanitation and wastewater infrastructure in. But in 2019 the fourth consecutive hottest year of modern history, being an island in the southernmost part of the Mediterranean has consequences on the quality and supply of sanitary water.

The third prioritized SDG is number 15, with only two targets which refer to severely degraded ecosystem. Target 15.3, related to desertification, implies the existence of a highly degraded ecosystem, and considering the history of Sicily we can assume this is not a new situation. Human development degraded the natural ecosystem of this island hundreds of years ago. This helps explain why the interviewees were not worried by issues such as biodiversity, as they have not perceived that this target has gotten worse during their lifetime.

Finally SDG 14 is valued very positively, considering we are talking of an island in the Mediterranean it is an interesting fact worth examining in further detail, as it is clear the Mediterranean is not in a critical situation only in the last decade, when many regulations have had to be implemented to enable the reproduction of the most caught species as well as to protect marine ecosystems in view of promoting their restoration.

ACTIONS NEEDED

- Renew water pipelines and the water system
- Water should be a universal right
- Domestic use of water should be prioritized over industrial use
- Water management should be participatory
- Increase cooperation at the civil and infrastructure level
- Increase the efficiency of the water system through water harvesting
- Raise awareness on the contamination of aquifers
- Regulate and penalize activities that affect the commons
- Increase the reuse of water
- Civil society should be involved in the collection of waste from rivers
- Ensure water sources are drinkable everywhere
- Protect coastal ecosystems
- Separate the collection of dirty water

- Implement the Conventions of the United Nations
- Territorial management should be participatory
- Strengthen resilience to climate change and disasters
- Raise awareness and increase resources
- More research of territorial resilience
- Regulate climate emergency policies as a matter of urgency
- Reduce the use of plastics
- Use of new technology to reduce the concentration of CO2
- Primary education in climate change and human impact
- Reduce waterproof surfaces to minimize the impact of torrential water
- Increase intercooperation and institutional transparency

- ☐ Ban tuna fishing with sonar
- ☐ Protect marine ecosystems and promote restoration
- ☐ Promote small-scale fishing
- ☐ Raise awareness of the impact of fishing
- ☐ End intensive fishing subsidies
- ☐ Regulate protection of the sea
- ☐ Beach cleaning and conservation
- ☐ Responsible and sustainable tourism
- ☐ End dumping of wastewater into the sea
- ☐ Monitor marine biodiversity
- ☐ Involve fishermen and population in management

- ☐ Ban deforestation, and promote restoration
- ☐ Promote reforestation
- ☐ Regulate protection of biodiversity
- ☐ Act against activities with a negative environmental impact
- ☐ Participatory management of communal lands
- ☐ Promote sustainable forest management as a matter of urgency
- ☐ Re-introduction of carnivores to balance the food web
- ☐ Ban lucrative extraction with a negative impact
- ☐ Cleaning and conservation of shoreline ecosystems
- ☐ Protection of mammals
- ☐ Promote sustainable agriculture and livestock farming
- ☐ Management and regulation of the entry of invasive alien species
- ☐ Involve civil society and schools in forest management
- ☐ Promote and reintroduce biodiversity

ACTIONS DONE

- ☐ Increasing the number of toilet facilities to defecate
- ☐ Improvement of water purification
- ☐ Improvement in the purification process
- ☐ Eliminate private management and increase the commons
- ☐ Improvement in humanitarian aid
- ☐ Occasional maintenance of the network
- ☐ Water in the network is drinkable anywhere
- ☐ Improvement of control and regulation
- ☐ Aquifers are protected and monitorized

- ☐ Financing projects to reduce risks
- ☐ Reform old town and reduce new buildings
- ☐ Protect degraded ecosystems
- ☐ Environmental education in schools
- ☐ Exchange centers for plastic reuse and reduction
- ☐ The use of solar panels and other renewable energies
- ☐ Few policies to cut down plastic use and reduce plastic waste
- ☐ Energy efficiency plans

- ☐ Actions to raise awareness
- ☐ Re-municipalization of beach monitoring
- ☐ Creation of marine protected areas

- Recovery of burnt areas
- Land rental to reduce abandonment
- Spaces of sustainable interaction (daily or for study/tourism) with nature (Parks, etc)
- Projects promoting existing biodiversity
- Park authorities manage the territory
- Some rivers have been managed for their improvement
- Ordinances for the abandoned lands
- Improvement of recycling
- Conservation of monumental trees
- Improvement of roads
- «LIFE» projects
- Conservation of endangered plants and trees
- Geological consolidation projects
- University of Palermo studying manna and ancient varieties of wheat
- Interventions in energy efficiency and public lighting
- Raising awareness of mountain ecosystems
- European funding for the conservation of forests

6.3 Barlavento Algarvio, Algarve case study

	6.1 Save and affordable drinking water
	6.2 End open defecation and provide access to sanitation and hygiene
	6.3 Improve water quality, safe reuse & wastewater treatment
	6.4 Increase water-use efficiency & ensure freshwater supplies
10	**6.5 Implement integrated water resources management**
	6.6 Protect and restore water-related ecosystems
	6.A Expand water and sanitation support to developing countries
	6.B Support local engagement in water and sanitation management

4	13.1 Strengthen resilience and adaptative capacity to climate related disasters
5	13.2 Integrate climate change measures into policies and planning
	13.3 Build knowledge and capacity to meet climate change
	13.A Implement the UN framework convention on climate change
6	13.B Promote mechanisms to raise capacity for planning and management

7	**14.1 Reduce marine pollution**
	14.2 Protect and resotre ecosystems
	14.3 Reduce ocean acidification
	14.4 Promote sustainable fishing
	14.5 Conserve Coastal and Marine Areas
	14.6 End Subsidies contributing to overfishing
	14.7 Increase the economic benefits from sustainable use of marine resources
	14.A. Increase scientific knowledge, research and technology for ocean health
	14.B. Support small scale fishers
	14.C. Implement and enforce international sea law

3	15.1 Conserve and restore terrestrial and freshwater ecosystems
8	15.2 End deforestation and restore degraded forests
1	15.3 End desertification and restore degraded land
	15.4 Ensure conservation of mountain ecosystems
2	15.5 Protect biodiversity and natural habitats
	15.6 Promote acces to genetic resources and fair sharing of the benefits
	15.7 Eliminate poaching and trafficking of protected species
	15.8 Prevent invasive alien species on land and in water ecosystems
9	15.9 Integrate ecosystem and biodiversity on goverrnmental planning
	15.A Increase financial resources to conserve and sustainably use ecosystem & biodiversity
	15.B Finance and incentivise sustainable forest management
	15.C Combat global poaching and trafficking

Table 4: Prioritisation of SDGs in Barlavento Algarvio, Algarve, Portugal (Orla Design, 2019)

PORTUGAL	Codes:		0 = balanced; 1 = unbalanced; 2 = danger; x = not placed on canvas (It can be also: 0,5 = between balanced and unbalanced; 1,5 = between unbalanced and danger)																														
#	6.1	6.2	6.3	6.4	6.5	6.6	6.a	6.b	13.1	13.2	13.3	13.a	13.b	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.a	14.b	14.c	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	15.a	15.b	15.c
1			1	2	2	2	1		1	2	1	1	1	1	2	1	1	2	2	2	1	1		2	1	2		2				1	2		
2				1	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	1	2	2	2	2	2	2	1	2	1		1	2	1	2	
3				2	2	2	2	2	2	1	2	2	2	2	1	2		1	2	1	2	2	2	2	2	2	1	2	1		2	2	2	2	2
4			1	1	1	2	1	2	1	1	1	1	1	1	1	1	x	1	1	x	1	1	1	2	2	2	1	2	2		1	2	2	2	
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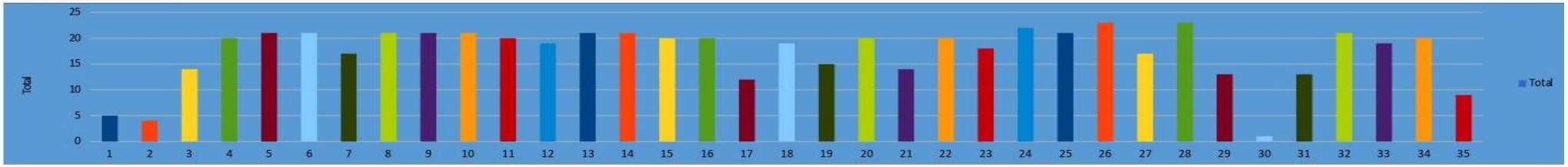
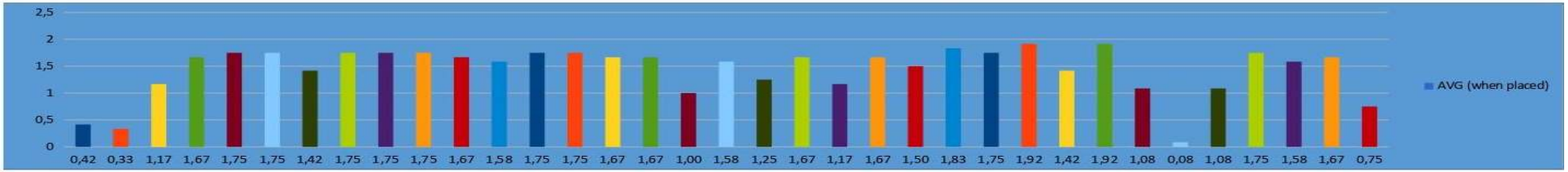
7		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		2	2	2	2	1	2	2	2		2	2	1	2	2
8			2	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2	1	2	1	2	1	2	2	2	2	1			2	2	2	2	2
9			1	2	2	2		2	2	2	2	2	2	2	2	2	2	1	2	2	1	2	2	2	1	2	2	1	2			1	2	2	1
10	2	1	1	1	2	2	1	2	2	2	2	2	2	2	2	2	1	1		2	x	2	2	1	2	2	2	2	1	1	2	2	1	2	2
11	1	1	1	1	1	1	2	1	1	2	1	1	2	2	2	2		2	2	2	2	2	2	2	2	2	1	2	1			2	1	1	
12			2	2	1	1		2	2	1	2	1	2	2	1	1	1	2		2	1	2		2	2	2		2			1	1	1	1	
Total	5	4	14	20	21	21	17	21	21	21	20	19	21	21	20	20	12	19	15	20	14	20	18	22	21	23	17	23	13	1	13	21	19	20	9
AVG (when placed)	0,42	0,33	1,17	1,67	1,75	1,75	1,42	1,75	1,75	1,75	1,67	1,58	1,75	1,75	1,67	1,67	1,00	1,58	1,25	1,67	1,17	1,67	1,50	1,83	1,75	1,92	1,42	1,92	1,08	0,08	1,08	1,75	1,58	1,67	0,75
Count of:																																			
Not placed																	1			1	1														
Balanced	9	9	2				2	1									3		3		1	1	2				2		2	11	3			1	7
Unbalanced	1	2	6	4	3	3	3	1	3	3	4	5	3	3	4	4	4	5	3	2	6	2	2	2	3	1	3	1	7	1	5	3	5	2	1
Danger	2	1	4	8	9	9	7	10	9	9	8	7	9	9	8	8	4	7	6	9	4	9	8	10	9	11	7	11	3		4	9	7	9	4





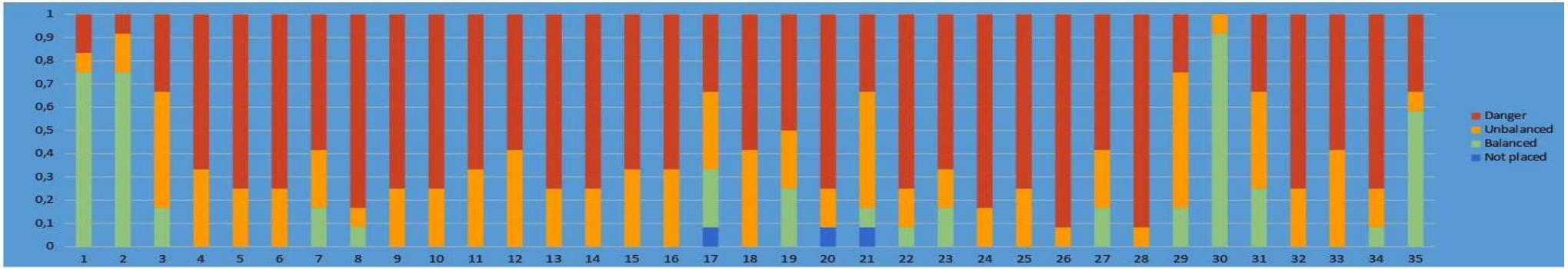


Image 21: Graphic results of the PAR process in Barlavento Algarvio, Algarve, Portugal (Orla Design, 2019)

DISCUSSION OF RESULTS

In the case study of Barlavento Algarvio, Algarve, southern province of Portugal, what is most striking is the number of targets in a state of emergency. This suggests that Barlavento Algarvio, Algarve is in a more privileged situation than other areas, and that the people who have participated in the interview have more awareness.

The most prioritized SDG is number 13, which makes sense as it is a very dry and coastal area in southern Europe, which at the same time has basic needs covered allowing the possibility of global awareness. It has to be taken into account that all targets in this SDG are on average in a state of emergency.

The second prioritized SDG is number 14, although it only has one of the most urgent targets, as it has 7 targets out of 10 in state of emergency. This is a region that still lives of fishing and at the same time has an important tourism impact. This can explain superficially this tendency.

The third SDG is number 15 with 5 targets in the top 10, many of these related to deforestation and desertification. This shows we are dealing with an ecosystem which historically has had a lot of human development and is in a situation of high degradation.

Finally, SDG number 6, where targets of ecosystem protection and improvement of efficiency are equally prioritized, and it is seen clearly that basic needs at an infrastructure level are in good conditions.

In terms of ecosystem services, it would seem that we are dealing with a case study where the supply criteria are in very good conditions, as well as some of the regulatory or even cultural ecosystems. But those of support and of regulation that affect the resilience of the biosphere could be more degraded. Following Max Neef, we could assume that the most basic satisfiers are covered but that access to human development is limiting the capacity to respond to other more complex needs such as freedom, identity or creativity.

ACTIONS NEEDED

- Waste water for golf courses and agriculture
- Agricultural farms that are unable to advance because of lack of public resources
- Increase efficiency of the public water network
- Create a circular water economy
- Raise awareness in water use
- Promote an intensive and diverse agricultural culture
- Raise awareness of the impact of chemicals on aquifers
- Promote empowered and sustainable communities
- Taxes for agricultural management with negative impact
- Taxes for the excessive use of water
- Use of plants adapted to arid climates
- Encourage agricultural and water use best practices
- Encourage rainwater harvesting
- Decentralize water distribution
- Primary education on water related issues
- Promote permaculture techniques
- Increase water harvesting in urban areas
- Increase sustainable micro-dams everywhere
- Question the quality of drinking water
- Promote water self-sufficiency
- Improve knowledge and culture of water management
- Conserving wetland and marshland ecosystems

- Implement European climate change policies
- Education in the use of resources
- Enhance interaction with nature
- Promote intergenerational dialogue
- Increase energy self-sufficiency
- Abolishing monoculture of eucalyptus
- Increase knowledge, prevention and transparency
- Participatory management of climate change
- Changes in the educational system
- Need for resources to generate alternatives
- Creation of an alternative mobility system
- Management that promotes resilient forests
- Efficiency in housing
- Make all knowledge available to the population
- Promote the creation of microclimates
- Good observatories open to the public
- Sequester CO2 in the soil

- Cleaner cities
- Protection and conservation of marine ecosystems
- Regulation of intensive fishing. Closed seasons
- Ban construction in coastal areas
- Prevent loss of community identities
- Ban plastics in fishing activities
- Eliminate oil concessions
- Supportive policies for small and sustainable fishing
- Regulate use of plastics
- Reduction of marine pollution - boats
- Decentralize management in a participatory manner
- Ban herbicides and biocides
- Enough research, it's time for action
- Regeneration of dune systems
- Connect the scientific community with governance
- Make management of marine ecosystems participative
- Free certification for sustainable fishing
- Change consumer habits
- Direct buying from fishermen
- Upcycling programs of sea garbage

- Promote truly sustainable farming techniques
- Protect and encourage the use of native varieties
- Protect biodiversity, implement the Rights of Nature
- Regulate access to natural parks
- Implement regenerative techniques
- Distribution of land to more farmers
- Eliminate eucalyptus plantations
- Tourism management to balance the impact
- Municipal support to agro-ecological producers
- Drastically regulate import of foreign species
- Abolish subsidies to monoculture
- Hold monoculture accountable of externalities
- Restrict golf courses
- Protect wetlands and marshlands
- Promote local economy
- Implementation of public policies
- Resources for participatory forest management

- ☐ Participation in public policies
- ☐ Stop use of greenhouses
- ☐ Regenerate ecosystems for endangered plants
- ☐ Increase funding for conservation
- ☐ Eradicate agriculture with no cover crops
- ☐ Eradicate tilling of farmlands

ACTIONS DONE

- ☐ Studies to prevent droughts
- ☐ Solidarity between rich and poor countries
- ☐ Sewage water treatment systems
- ☐ Protection regulations
- ☐ Studies to improve irrigation in agricultural areas
- ☐ Monitoring water resources
- ☐ Water quality control
- ☐ Some sewage water treatment systems with plants
- ☐ Reduction of the impact of nitrates on aquifers
- ☐ Protected wetland ecosystems
- ☐ Awareness campaigns in schools
- ☐ Implementation of efficient techniques for water use

- ☐ Local plans to adapt to climate change
- ☐ Some spaces for debate have been opened
- ☐ Protection of flood areas
- ☐ Vague debates and studies
- ☐ Civic platforms for intercooperation
- ☐ Car sharing
- ☐ e-bikes
- ☐ Increase of alternatives in the use of plastics
- ☐ Increased efficiency in lighting
- ☐ More street markets
- ☐ Scientific studies
- ☐ Soil monitoring
- ☐ Some cases of regenerative agriculture
- ☐ Local consumption
- ☐ Reduction of family ecological footprint
- ☐ Sustainable tourism
- ☐ Restricted zones free of glyphosate

- ☐ Limits in sardine fishing
- ☐ Environmental awareness
- ☐ Move boats away from the coast
- ☐ Existing regulations that need monitoring
- ☐ Natural park on the coast
- ☐ Activism to stop fracking
- ☐ Private tests for water toxicity
- ☐ Information for tourist boats
- ☐ Civil actions and local groups
- ☐ State of natural parks
- ☐ Reduction of industrial fishing
- ☐ Reduction of mechanical oil on the beaches
- ☐ Campaigns against plastics in the sea
- ☐ Buying from local fishing
- ☐ Surfing associations for conservation

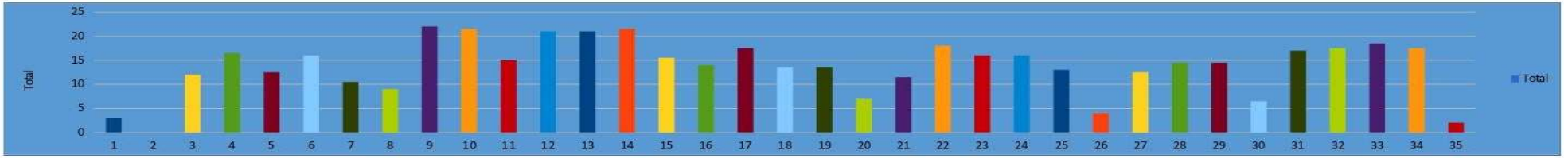
- Private instead of public initiatives
- Management of natural parks
- Municipal forest management plan
- Reforestation initiatives in schools
- Land custody for reforestation
- Areas protected from hunting
- Dialogue on invasive alien species
- Some interventions in exchanging eucalyptus for oaks
- Citizen initiatives against monoculture plantations
- Citizen initiatives to prevent invasive alien species
- Increased individual awareness
- Citizen projects for local consumption
- Citizen projects for reforestation
- Activities with schools to eradicate invasive alien species
- Islands and natural corridors
- Organic beekeeping
- Private actions in their estates
- Neo-rural trends
- Small projects inter-cooperate
- A growing agro-ecological movement
- Support local markets
- Ecosystem restoration camps
- Acceptance of large-sized wild life

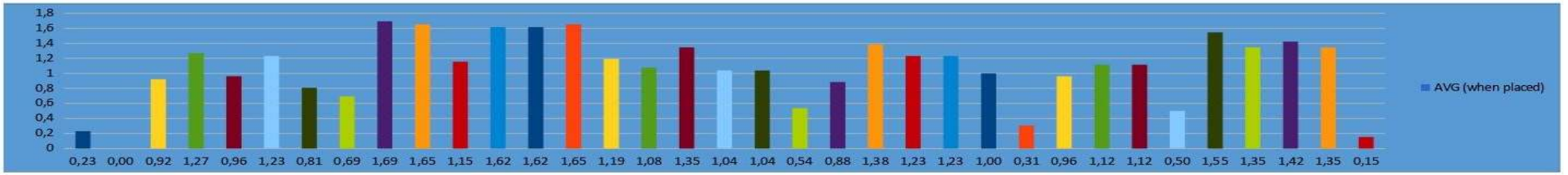
6.4 La Garrotxa case study

6.1 Save and affordable drinking water	1 13.1 Strengthen resilience and adaptative capacity to climate related disasters	3 14.1 Reduce marine pollution	15.1 Conserve and restore terrestrial and freshwater ecosystems
6.2 End open defecation and provide access to sanitation and hygiene	2 13.2 Integrate climate change measures into policiies and planning	14.2 Protect and resotre ecosystems	15.2 End deforestation and restore degraded forests
6.3 Improve water quality, safe reuse & wastewater treatment	13.3 Build knowledge and capacity to meet climate change	14.3 Reduce ocean acidification	15.3 End desertification and restore degraded land
6.4 Increase water-use efficiency & ensure freshwater supplies	5 13.A Implement the UN framework convention on climate change	8 14.4 Promote sustainable fishing	15.4 Ensure conservation of mountain ecosystems
6.5 Implement integrated water resources management	6 13.B Promote mechanisms to raise capacity for planning and management	14.5 Conserve Coastal and Marine Areas	15.5 Protect biodiversity and natural habitats
6.6 Protect and restore water-related ecosystems		14.6 End Subsidies contributing to overfishing	15.6 Promote acces to genetic resources and fair sharing of the benefits
6.A Expand water and sanitation support to developing countries		14.7 Increase the economic benefits from sustainable use of marine resources	15.7 Eliminate poaching and trafficking of protected species
6.B Support local engagement in water and sanitation management		14.A. Increase scientific knowledge, research and technology for ocean health	4 15.8 Prevent invasive alien species on land and in water ecosystems
		14.B. Support small scale fishers	9 15.9 Integrate ecosystem and biodiversity on goverrnmental planning
		14.C. Implement and enforce international sea law	7 15.A Increase financial resources to conserve and sustainably use ecosystem & biodiversity
			10 15.B Finance and incentivise sustainable forest management
			15.C Combat global poaching and trafficking

Table 5: Prioritisation of SDGs in La Garrotxa, Catalunya (Resilience Earth, 2019)

CATALUNYA	Codes:	0 = balanced; 1 = unbalanced; 2 = danger; x = not placed on canvas (It can be also: 0,5 = between balanced and unbalanced; 1,5 = between unbalanced and danger)																																		
#		6.1	6.2	6.3	6.4	6.5	6.6	6.a	6.b	13.1	13.2	13.3	13.a	13.b	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.a	14.b	14.c	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	15.a	15.b	15.c
1				1	2	0,5	1	2	1	2	1	1	2	1	2	2	2	2	2	2	2	2	2	2	1			1,5	1	2	1,5	1	2	1	1	x
2					1					2	2		2	2	1	1	2	1	1					2	1	1		1	1	2		2	1	1	2	
3				1	1,5	1	1,5			2	2	2	2	2	2	2		2	2	2		2	1	2	1	1		1	1	2			2	1	2	1	
4				1	1	0,5	1,5	x		1	1,5	1	2	1	2	x	x	1,5	x	x	x	x	x	x	1	1	1		0,5		x	1	2	2	2	x
5			x		1			x		2	1			1	2	1	1	2	1	2	1		1	x		2	x	1			x	2	1	1	2	x
6		1		2	2	1,5	1	1	1	1	2	2	2	2	1	2	x	2	x	x	x	x	2	x	1	1			1	0,5		1'5	0,5	2	2	x
7		1		2	1	2	2		2	1	2	2	1	2	2	1	1	1	2	2	1	1	2	2	1	1	1	2	2	2	1	2	2	1	1	
8				0,5	0,5	x	0,5	1,5	x	1	1	1	x	1	0,5	1,5	x	1	0,5	1,5	x	1	1,5	x	1				1	x	1	1	1	1	1,5		
9		0,5		1	1,5	1	1,5	x	2	2	2	1	2	1	2	1	2	1	1	x	x	x	1	x	2			1	2	1		1'5	1	1,5	x	x
10				2		2	1	1	2	2	2		2	2	2	x	2	x	x	x	x	2	2	2	1	1	1	2	2	1		1	1			x
11					1	2	2	1		2	1	1	2	2	1	1	2	2			1	1	2	2	2	2	x	1	1			2	1	2	1	
12		0,5		0,5	2	2	2	2	1	2	2	2	2	2	2	1	2	2	2	2	x	1,5	1,5	2	2	1	1	1	1	2	2	2	2	2	2	2
13				1	2	x	2	2		2	2	2	2	2	2	2	x	x	2	2	2	1	2	2	2	2	x	1	1	2	1	1	2	2	2	x
Total		3		12	16,5	12,5	16	10,5	9	22	21,5	15	21	21	21,5	15,5	14	17,5	13,5	13,5	7	11,5	18	16	16	13	4	12,5	14,5	14,5	6,5	17	17,5	18,5	17,5	2
AVG (when placed)		0,23		0,92	1,27	0,96	1,23	0,81	0,69	1,69	1,65	1,15	1,62	1,62	1,65	1,19	1,08	1,35	1,04	1,04	0,54	0,88	1,38	1,23	1,23	1,00	0,31	0,96	1,12	1,12	0,50	1,55	1,35	1,42	1,35	0,15
Count of:																																				
Not placed			1			2		3	1				1			2	4	2	3	4	6	3	1	5			3			1	2				1	7
Balanced		11	12	5	2	4	3	3	6			3	1		1		1		2	2	2	2	1		1	3	6	3	2	4	6		1	1	1	5
Unbalanced		4		7	8	5	7	4	3	4	5	5	1	5	4	7	2	5	4	1	3	5	5		8	7	4	8	9	3	4	5	8	6	5	
Danger				3	6	5	7	4	3	9	9	5	10	8	9	5	6	7	5	7	2	4	8	8	4	3		3	3	6	2	6	5	7	7	1





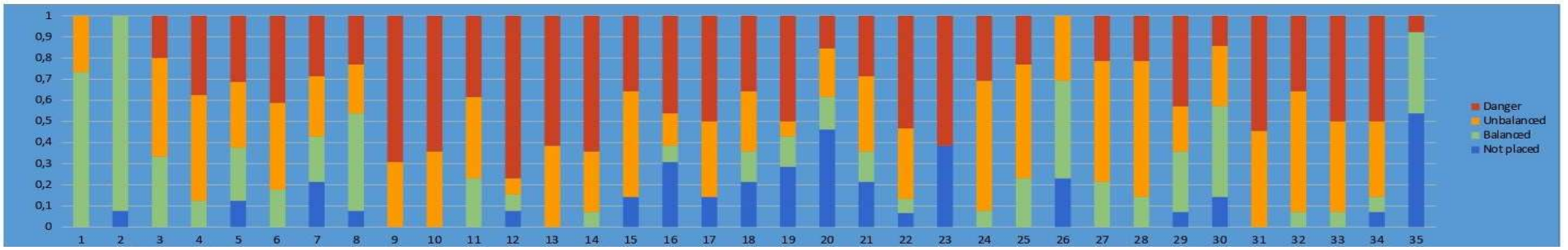


Image 22: Graphic results of the PAR process in La Garrotxa, Catalunya (Resilience Earth, 2019)

DISCUSSION OF RESULTS

The case study of La Garrotxa is noteworthy for its predominant concern with climate change. Four of the six red indicators can be found in SDG 13. This implies a high level of global awareness. Once more we see the pattern that when SDG 6 is not in a state of emergency, SDG 13 gains importance. La Garrotxa is an area that also has a certain degree of privilege, and municipal infrastructures are fairly well guaranteed. This enables citizens, many of them with university education, to have a level of awareness in relation to global issues.

The second SDG prioritized is SDG 14, which is unusual as La Garrotxa has no direct access to the sea. It is half an hour away from the nearest beach. Indeed, there seems to be clear connection, but we could also say that the campaigns to raise awareness about the situation of the sea have had a significant effect on the perception of the people of La Garrotxa. This can happen in societies that are increasingly less connected to their own natural environments, making them more concerned with social media campaigns.

The third SDG is number 15. La Garrotxa is basically a forest and mountain area which includes a natural park that covers large part of the territory. La Garrotxa has a reasonably healthy ecosystem in comparison to some of its neighbors. But there are some indicators that show quite alarming tendencies in recent years. Prioritized targets in this case have more to do with the financing of management and preventing entry of invasive alien species.

Finally, SDG number 6 seems not to worry the interviewees from La Garrotxa, since there is not even one of the targets of the top 10 in this goal and most are in a state of equilibrium.

This, according to Max Neef, would point once again to a society that has its subsistence needs covered and is therefore able to observe in a wider and more complex way the situation of the ecosystem to which it belongs.

ACTIONS NEEDED

- Wastewater is too heavily treated
- Some of the industrial colloids are not treated
- Water use in agriculture affects aquifers, wetlands and marshlands
- Water courses and their self-management must be respected
- Water is an indisputable common good
- We need an estimate of the water balance
- Prioritize natural processes
- Agriculture and industry adapt the territory to their needs
- Rivers and flood areas must be managed
- The resource must be managed, not the necessity
- The governance of water must be prioritized
- The price of water is higher than what is paid
- Ecosystems are restored in an anthropocentric manner
- Regulation of extraction of sources and wells, and general use
- Regulation of nitrates
- Corn uses more water than other crops
- Water recycling circuit should be created
- Water must be a participatory management resource
- It is better to prevent than restore
- Relationship with the south must be horizontal
- Implement natural sewage treatment plants
- Reuse industrial locks
- Identify illegal extractions of water
- Use of pesticides and biocides should be banned
- When raining the gates of ETAP (potable water treatment plant) are opened
- Overexploitation, 70% of water sources and 40% of aquifers
- Regulate more strictly meat and paper industries

- ☐ Creation of an innovative mobility system
- ☐ A waste system based on reducing
- ☐ Creation of prevention and resilience policies
- ☐ Increase intergenerational participation in politics
- ☐ We can generate a positive impact
- ☐ Generate policies for the promotion of renewable energies
- ☐ Promote biomass and geothermal energy
- ☐ We have to improve the capacities to develop resilience
- ☐ Sovereignty in climate action
- ☐ Citizen training for climate change
- ☐ Promote sustainable buildings and natural materials
- ☐ European subsidies should support change
- ☐ Management to make more resilient forests
- ☐ All roofs with solar energy
- ☐ Strategic planning in the actions to be taken
- ☐ Break away from the technocratic paradigm
- ☐ Re-design urban planning taking into account mobility
- ☐ Change the diet of the population
- ☐ Continuing education during the whole life span
- ☐ Creation of more cooperatives
- ☐ A participative observatory that distributes the information
- ☐ Make sure the polluter pays

- ☐ Promote small-scale fishing
- ☐ Responsible consumption
- ☐ Promote fishermen's guilds
- ☐ Direct selling by the fisherman
- ☐ Stop the loss of wetlands, marshlands and streams
- ☐ Value the ecosystem services of the sea
- ☐ Restore the coast, demolishing tourist housing developments
- ☐ Invasive alien species negatively affect more the sea than land
- ☐ Organize consumption
- ☐ Take responsibility for what enters into La Garrotxa
- ☐ Protect the area between urbanizations and the sea
- ☐ Improve parking areas on the coast
- ☐ Reduce the impact of tourist trade
- ☐ Improve the coastal roads
- ☐ Ban coral extraction
- ☐ Determine the load capacity of the beaches
- ☐ Eliminate privileges of the tourism industry
- ☐ Define a specific tourism and regulate it
- ☐ Regulate use of cosmetics and creams at sea
- ☐ Improve the state of rivers in urban areas

- ☐ Demand the development of a sustainable management
- ☐ Stop mixing wild pig with domestic pig
- ☐ 200 invasive alien species of flora
- ☐ 75 invasive alien species of fauna
- ☐ Natural parks no longer preserve, they attract tourism
- ☐ Restoration of the agricultural mosaic and forest ecosystems
- ☐ Implement the Rights of Nature
- ☐ Prevent the introduction of invasive alien species
- ☐ Decentralize governance of management
- ☐ Rivers as ecological connectors in urban areas
- ☐ Help upstream movement of fish in the locks of the rivers
- ☐ Accelerate natural succession of forests

- Promote ecological connectivity in infrastructures
- Manage the spaces between urban areas and nature
- Change intensive livestock for silvopasture
- We have many situations of danger in terrestrial biodiversity
- Generate a local public-private conservation fund
- Promote the geological heritage
- Foster agro-ecology as a trade of the future
- Create a regional civil society lobby
- Migrants are a potential to manage the environment
- Enhance training in forest management
- Adapt tourism to the needs of the territory and not conversely
- 90% of the forest is private, we need custody and commons

ACTIONS DONE

- Good water infrastructures
- Waste water is 100% sanitized
- Cost of water is solidary and universal
- 100% of municipalities have sewage treatment plants
- Organic phytosanitary products are being used more and more
- Since the decline of the textile industry, water is in better conditions
- Citizen organizations
- for the protection of rivers
- Rivers can sustain wildlife

- Resilience plan for natural disasters
- Private and industrial initiatives
- Innovative experiences with geothermal energy
- Pilot projects in sustainable mobility
- Public policies that are starting to be generated
- Public lighting
- Social and youth organizations

- Studies carried out on the state of the sea
- Industrial networks are being banned
- Marine protection zones are being implemented
- Parking in summer- agriculture in winter
- Deconstruction of some buildings and restoration
- Sea floors are being conserved in some areas (for coral & algae restoration and for animal habitat restoration

- Sigma Regional Environmental Department's seed bank
- Eco-llavors' seed bank
- Collection of native varieties of the Park
- 'Rius' project
- Caminsdefauna.com
- 53% of the territory under protection
- Some protected areas are not promoted
- More communication and seminars are being generated
- Special plan of Alta Garrotxa
- Re-introduction of different species from the Park
- The creation of the natural park thanks to popular pressure
- The European Charter for Sustainable Tourism
- An office of the Catalan Institution of Natural History
- Stop extraction of volcanic rock

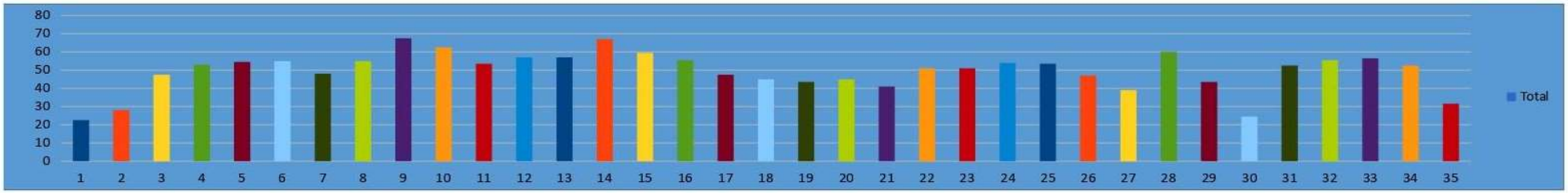
- Wild boar management
- Reduction of agrochemicals
- La Garrotxa has identity

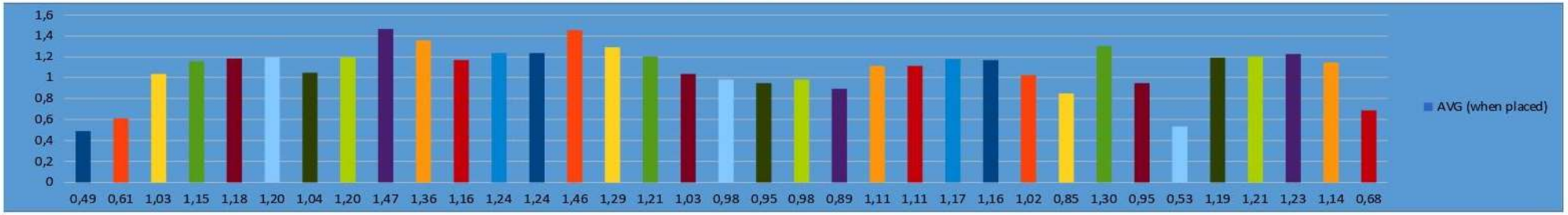
6.5 Collective findings

6 CLEAN WATER AND SANITATION		13 CLIMATE ACTION		14 LIFE BELOW WATER		15 LIFE ON LAND	
	6.1 Save and affordable drinking water	1	**13.1 Strengthen resilience and adaptative capacity to climate related disasters**	2	**14.1 Reduce marine pollution**		15.1 Conserve and restore terrestrial and freshwater ecosystems
	6.2 End open defecation and provide access to sanitation and hygiene	3	**13.2 Integrate climate change measures into policiies and planning**	4	**14.2 Protect and resotre ecosystems**		15.2 End deforestation and restore degraded forests
	6.3 Improve water quality, safe reuse & wastewater treatment		13.3 Build knowledge and capacity to meet climate change		14.3 Reduce ocean acidification		15.3 End desertification and restore degraded land
	6.4 Increase water-use efficiency & ensure freshwater supplies	6	**13.A Implement the UN framework convention on climate change**		14.4 Promote sustainable fishing		15.4 Ensure conservation of mountain ecosystems
	6.5 Implement integrated water resources management	7	**13.B Promote mechanisms to raise capacity for planning and management**		14.5 Conserve Coastal and Marine Areas	5	**15.5 Protect biodiversity and natural habitats**
	6.6 Protect and restore water-related ecosystems				14.6 End Subsidies contributing to overfishing		15.6 Promote acces to genetic resources and fair sharing of the benefits
	6.A Expand water and sanitation support to developing countries				14.7 Increase the economic benefits from sustainable use of marine resources		15.7 Eliminate poaching and trafficking of protected species
10	**6.B Support local engagement in water and sanitation management**				14.A. Increase scientific knowledge, research and technology for ocean health	8	**15.8 Prevent invasive alien species on land and in water ecosystems**
					14.B. Support small scale fishers		**15.9 Integrate ecosystem and biodiversity on goverrnmental planning**
					14.C. Implement and enforce international sea law	9	**15.A Increase financial resources to conserve and sustainably use ecosystem & biodiversity**
							15.B Finance and incentivise sustainable forest management
							15.C Combat global poaching and trafficking

Table 6: Prioritisation of SDGs in all four case studies (Resilience Earth, 2019)

TOTAL RESULTS	6.1	6.2	6.3	6.4	6.5	6.6	6.a	6.b	13.1	13.2	13.3	13.a	13.b	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.a	14.b	14.c	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	15.a	15.b	15.c
Total	22,5	28	47,5	53	54,5	55	48	55	67,5	62,5	53,5	57	57	67	59,5	55,5	47,5	45	43,5	45	41	51	51	54	53,5	47	39	60	43,5	24,5	52,5	55,5	56,5	52,5	31,5
AVG (when placed)	0,49	0,61	1,03	1,15	1,18	1,20	1,04	1,20	1,47	1,36	1,16	1,24	1,24	1,46	1,29	1,21	1,03	0,98	0,95	0,98	0,89	1,11	1,11	1,17	1,16	1,02	0,85	1,30	0,95	0,53	1,19	1,21	1,23	1,14	0,68
Count of:																																			
Not placed		1	1	1	2	1	6	1		3	2	10	6	3	6	10	8	11	13	12	9	9	11	1		3	1	1	5	5	1	4	2	3	12
Balanced	30	26	12	9	10	9	8	10	3	6	8	3	4	4	2	3	8	6	6	2	5	7	7	7	12	14	17	8	12	24	7	6	5	10	16
Unbalanced	14	10	23	23	17	20	17	17	19	15	20	9	15	13	17	12	13	16	11	19	25	10	8	22	15	11	21	18	16	12	21	18	22	17	5
Danger	5	9	13	17	20	20	17	20	25	25	17	24	21	28	22	22	18	15	17	13	9	22	22	16	20	18	11	23	14	8	16	19	18	19	14





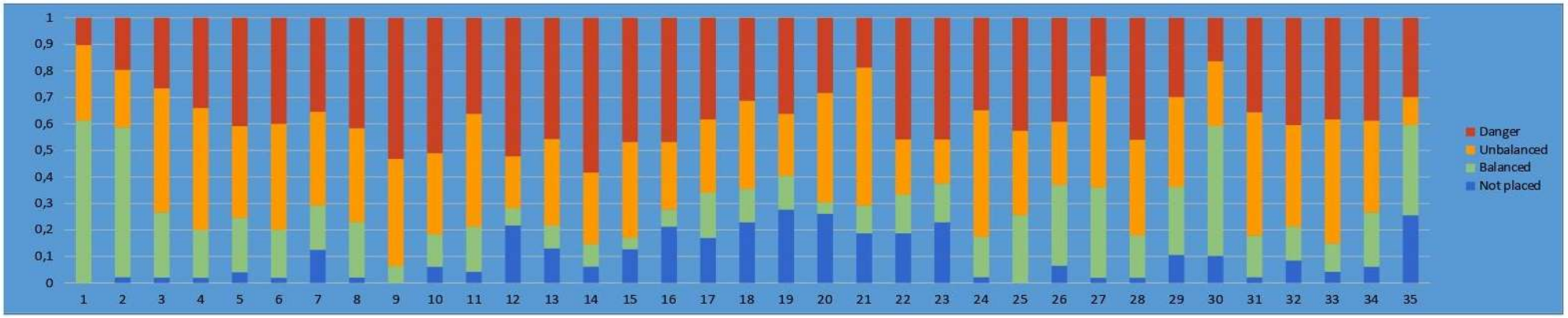


Image 23: Graphic results of the PAR process in all four case studies (Resilience Earth, 2019)

DISCUSSION OF RESULTS

When reviewing the collective results, it is worth noting that the indicator that stands out from the rest is precisely SDG 13, the one with global implications, and so the one with greater tendency to generate consensus.

A third point that also demands attention is the fact that only 10 of the 35 targets are in a balanced state, revealing a situation of systemic imbalance in the rural communities which are part of the study.

In regard to needed actions and actions taken there are certain patterns that repeat themselves in all 4 study cases:

- The interviewees do not feel they have the capacity to handle the challenges:
- The interviewees do not trust the public administration, although in several cases they themselves are government officials.
- The interviewees consider that these imbalances are a direct consequence of the globalization process and the impact of corporations and companies at a local level.
- The interviewees believe in the capacity to respond through citizen self-management.
- The interviewees do not have enough tools to generate self-organized citizen movements
- The interviewees are very concerned about the future of their territories and it is difficult for them to show optimism, although in general they still have hope.

Based on these results and patterns observed, all partners of this project will be able to support and accompany the consolidation of the framework and methodological tool WeLand. We will also be able to catalyse and support the regenerative processes in rural territories of marginal Europe. Let us remember that Europe's peripheral communities are also where there is more freedom of co-creation and therefore more potential in the rate of adaptation and rate of increased capacity for leadering change, making the four case study regions prime candidates for pioneering regenerative development.

Image 24: Summary of collective findings of prioritisaiton of SDGs, according to the locations of case studies (Resilience.Earth, 2019)

7. Recommendations and Implications

The debate on the results of the PAR will take place at the transnational meeting to be held in Budapest at the end of September 2019, as all parties will be present and we will be able to look into the subtleties of the process and its conclusions. In any case, as a preliminary to the debate, what the results reveal is an issue clearly related to the externalities of structural violence exerted over territorial systems.

Rural communities have experienced a globalizing process that has taken away their responsibility for their territories and are in a situation where the consequences of the globalization process are carried out through large companies that are not part of the territory and do not share their identity nor sense of belonging. These companies plunder the community through the externalities that fall into the social and environmental costs of their activities. The activities they carry out are thought, designed and implemented exclusively from the perspective of the economic benefit of the company and therefore generate negative externalities in the salary level of local people, their working conditions, the empowerment of the workers, waste generation, diminishment of local commerce, impact on rivers, arrival of new invasive species into the ecosystem, pollution of the sea, destruction of productive jobs such as fishing and artisanal agriculture, contamination of aquifers with nitrates from slurry, urbanization of natural areas, and much more. These externalities are not covered by the private sector, and in many cases they are not covered at all. The public administration only prioritizes the management of these impacts when they cause a crisis situation and so they do it in a reactive way, carrying out specific actions that do not last in time. In the few cases when the administration decides to undertake a structural change through the formulation of public policies, it seems this is due to some type of popular organization that has been able to generate enough pressure as to have an effect on the political sphere or due to the internal pressure of municipal technicians who consider the territorial situation through a less political and so more transversal and objective, perspective.

This leaves communities in the hands of global uncertainty and movements of macroeconomics, reducing therefore their resilience and ability to respond. At the same time, the structures generated from the public administration are usually very rigid, opaque and not very participatory, as for example natural parks and other forms of nature conservation. In this way the people of the community cannot participate in the management of their territory. And this has a direct implication in Theory X and Theory Y of Douglas McGregor presented in the section of theoretical frameworks. When public administration does not trust the capacity of response of the community nor their ability of self-management, treating them as irresponsible people, this generates a response from the population coherent with these assumptions. By contrast, the administration trusts and believes in the responsibility of the private sector and its capacity to manage the human needs of the territory, even though it does not participate directly in the community and generates many negative externalities of which they do not take responsibility. Only some parts of the private sector take responsibility over these externalities but they do so from the perspective of Corporate Social Responsibility, which implies that the community should be grateful for their generosity, in a process which empowers the private sector instead of the community, as this perspective encourages once more an aid-based approach.

Finally, these communities have to deal now with the externalities of global industrial capitalism, expressed in systematic consequences such as climate change or migration crisis, to which they have no structure or resources with which to respond in any way, generating a feeling of frustration, indignation and impotence.

The externalities related to the ecosystem services generate an impact that affects the community and territory in a deep, intimate and structural way, diminishing their sense of identity, sense of belonging and empathic capacity of the population towards the territory, thus reducing the complexity of the ecosystem and therefore its resilience.

In summary, if we consider these externalities and the rigid and aid-based frameworks, especially in relation to the human satisfiers of Max Neef, and if we apply Johan Galtung's structural violence framework, we can see that:

1. Communities which have experienced greater structural violence have less ability to take responsibility for their land and focus instead on basic needs.
2. Communities that have the privilege of being able to focus on the well-being of their land, because their basic satisfiers are relatively well-covered, tend to: (a) be eager to learn how about self-management in order to apply it locally; (b) not trust the public administration; and (c) consider that many of the SDG targets at the local level are either out of balance or in a state of emergency.

Thus, we can conclude that a community's ability to respond is affected by the intensity of the structural violence it suffers. The level of awareness of impacts of the global crisis at the local level is conditioned by issues such as loss of identity and resources which consequently affects it's regenerative capacity and territorial resilience.

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