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## Tackling climate change with Participatory Video (PV)

Recommendations for integrating participatory action, social inclusion, and climate education based on the Climatubers project

## **Executive Summary**

The objective of the Climatubers project is tackling climate change and social inclusion through the participatory video (PV) method. PV facilitates improving digital skills while sharing personal climate change experiences. With PV, the devastating effects of the climate crisis can be rendered visible, empowering vulnerable communities to raise their voice and advocate for social change. The project, funded by the Erasmus+ programme, has been tested in five pilot cases throughout Europe, specifically in Austria, France, Spain, Italy, and Estonia. After three years of work, the project has produced 19 videos, training modules freely available online, a comprehensive evaluation report, and the policy recommendations provided in this document.

Climatubers' framework and the resulting policy recommendations are aligned with specific EU initiatives and policy instruments like the Social Climate Fund under the European Green Deal, the Paris Agreement, or the Sustainable Development Goals. The project has also considered the Education for Climate Initiative or The Pillar of Social Rights, as well as the National Adaptation Plans at the national level. The policy recommendations have been developed based on a comprehensive mixed-method evaluation assessment, policy dialogue sessions with key actors in the field of climate change, and existing literature.

The policy recommendations address several target groups in the field of policy, education, and social services and provide guidance for promoting and upscaling PV using a holistic perspective for raising awareness about climate change, promoting social inclusion for all communities, and improving digital skills. In this sense, PV is proposed as a means to reach the intended goals. The recommendations are as follows:

- 1. Provide spaces for deliberating climate change for all citizens.
- 2. Address climate change as part of people's realities and experiences.
- 3. Use PV to connect citizens and local authorities to co-create participatory policies.
- 4. Provide frameworks and resources so that citizens and communities can use PV for establishing links, sharing their message, and fostering public debate.
- 5. Build or join a community of practice for implementing PV.
- 6. Use interdisciplinary approaches for addressing climate change holistically in formal and non-formal education.

These recommendations can be applied in the short-term at the local level of any country. Moreover, long-term strategies will be developed and presented in the Climatubers Scalability Plan, with the aim of addressing climate change issues holistically at the local level while replicating PV in diverse contexts, departments, and actions.



## Acronyms

COP United Nations Climate Change Conference

CSO Civil Society Organisation ESF+ European Social Fund

EU European Union

NAP National Adaptation Plans

NGO Non-Governmental Organisation

PV Participatory Video SCF Social Climate Fund

SDGs Sustainable Development Goals

SECAPs Sustainable Energy and Climate Action Plans

SWOT Strengths, Weaknesses, Opportunities, Threats Analysis



#### 1 Introduction

#### 1.1 Objective

This document recognises **three main challenges** encompassing climate change inaction, digital skills, and social inclusion, and proposes the participatory video (PV) method for implementing programs and policies addressing these challenges. The suggested approach aims to tackle climate action, promote inclusion and diversity, and enhancement of digital skills to support the implementation of relevant policies, services, and programs, at EU and local level, with specific improvements that may increase their success and reach. A key objective is to give a voice to marginalised individuals and communities.

The proposed initiatives are formulated with the aim to address these three challenges:

- Climate change action (fostering awareness and participation of citizens independently of their background and privileges, to increase engagement in climate action, which is highly needed)
- Considering vulnerabilities (notably increasing diversity and respect to people that may be suffering from any discrimination or vulnerable situation, to empower them in a process that is inclusive and to both raise their voice and increase direct social bonds)
- Enhancement of digital skills (of people with a diverse skill-set, but also including digitally excluded people)

This document has been developed within the framework of the Climatubers project, co-financed by the Erasmus+ Program.

#### 1.2 Target audience

The intended audience for these policy recommendations is constituted by:

- 1. National/regional level policy makers and decision-makers
- 2. Local authorities, city councils, civil servants
- 3. NGOs, Education institutions, CSOs

These actors could use these policy recommendations to influence decision making (1), implement policies and programs (2), and actively engage to involve citizens in activities/initiatives that have social impact (3).

## 1.3 The Climatubers project

CLIMATUBERS is a European project co-financed by the Erasmus+ program, which aims to implement the participatory video method, especially in vulnerable or marginalised communities, with the goal of demonstrating the social inclusion dimension of climate change on a European scale. 5 pilot cases have tested the methodology in different countries (AT, FR, ES, IT, EE) with different participant groups.

The project activities took place from 2021 to 2024 and consisted of: engagement of participants, creation of a Advisory Board, co-creation of <u>19 videos</u>, dissemination and public debates, elaboration of <u>training modules</u>, and policy recommendations.



#### 1.4 Participatory Video (PV)

Participatory video is a methodology that has been explored mainly in countries of the Global South as a tool for social change, inclusive learning, and fining solutions to collective problems<sup>1,2</sup>.

PV promotes the development of digital skills related to video creation, editing, audiovisual narrative, storytelling, and online content communication and dissemination. PV also promotes the development knowledge related to co-creation or collective production, such as the skill of debate, dialogue, or the search for consensus in the face of diverse opinions. Ultimately, PV aims to support the creation of innovative solutions to build new narratives that help make visible the vulnerabilities of concerned social groups. Consequently, the participants often experience a process of personal empowerment and agency when influencing the future of their community.

#### 1.5 EU framework and policy instruments

The CLIMATUBERS project is strategically embedded within a comprehensive framework that considers policies and programs at various levels. The short overview that follows can be useful to better frame and understand its initiatives, recommendations, and mid-term impact strategies involving Participatory Video (PV) after project completion.

At the international level, the project aligns with EU initiatives such as the **Social Climate Fund (SCF)** under the **European Green Deal**. The SCF addresses social vulnerability during the shift to sustainable practices and casts light on inclusivity in EU climate policies. International frameworks like the **Paris Agreement** and the **Sustainable Development Goals (SDGs)** further guide CLIMATUBERS, setting ambitious targets and emphasising the social implications of climate change. CLIMATUBERS can be also depicted within the EU-level frameworks like the **Education for Climate Initiative**, creating a crucial link between climate change and vulnerable communities, especially in terms of job opportunities. Recognizing education as an essential aspect, the Education for Climate Initiative serves as a bridge, emphasising job opportunities and fostering a connection between climate change and vulnerable communities.

Engaging with the **European Pillar of Social Rights**, CLIMATUBERS aligns with EU policies defending fair labour markets and social protection systems, enhancing the connection between climate change and vulnerable communities. This initiative acknowledges the significance of skills and invests in training and upskilling, promoting competitiveness and inclusivity. In this sense, the **European Social Fund (ESF+)** plays a key role by significantly contributing to education and skills, particularly in adult learning, green skills, and inclusivity.

At the national level, the project can align and be re-framed within the implementation of **National Adaptation Plans (NAP)**. As an example, Spain expressed its commitment to climate resilience through the implementation of the **Law 07/2021** about Climate Change and Energy Transition which focuses on making vulnerable communities, including migrant communities, resilient to climate change. The direct implication of this law at the local/urban level has been the deployment of the Sustainable Energy and Climate Action Plans (SECAPs) in different cities. As a cornerstone among local initiatives, the **Barcelona Climate Plan** provides a comprehensive strategy addressing climate justice and zero energy poverty by 2030. With a keen focus on inclusivity, the plan ensures the rights of the most vulnerable through citizen engagement and collaborative projects.

# 2 Cross-cutting challenges in climate action, social inclusion, and digital skills

The challenges identified below acknowledge a broad range of perspectives, from the individual citizen perspective, life-long skills development angle to the policy level. Despite their diversity in scale, they share a

<sup>&</sup>lt;sup>1</sup> Bezzina, L. (2022). Using Participatory Video in Researching Livelihoods in the Global South. In F. Nunan, B. Clare, & K. Sukanya, *The Routledge Handbook on Livelihoods in the Global South* (1. Aufl., S. 134–146). Routledge. <a href="https://doi.org/10.4324/9781003014041-15">https://doi.org/10.4324/9781003014041-15</a>.

<sup>&</sup>lt;sup>2</sup> Bezzina, L. (2023). Participatory video and diagramming with disabled people in Burkina Faso: *Reflections on methods, representation, and power. Disability & Society, 38*(9), 1511–1533. <a href="https://doi.org/10.1080/09687599.2022.2034599">https://doi.org/10.1080/09687599.2022.2034599</a>.



common objective: amplify the voices of underrepresented individuals and communities in the climate discourse through fostering video skills while nurturing the public debate.

#### 2.1 Empowerment and Climate Justice

Climate change and climate (in)justice are highly complex topics, which acknowledge the specific climate change-related consequences and challenges for those social groups considered as vulnerable because of socioeconomic factors, limited resources, or inadequate access to support systems and infrastructure. Currently, there is a lack of methodologies for better understanding the potential interlinkages and implications of climate change and climate (in)justice for these individuals. Furthermore, there is a need for creating spaces and/or frameworks that can support the development of ideas on how individuals in vulnerable situations can actively participate and shape the climate discourse. In different projects implemented across the world<sup>3</sup>, participatory video already showed promising results in empowering individuals and communities of different backgrounds<sup>4</sup>. As climate change is a very complex phenomenon, these individuals can be seen as experts of their own realities. PV allows people to research, document and raise awareness on their own challenges and their interconnectedness with climate change issues. As new cracks and divisions arise in the climate change movement<sup>5</sup>, PV can be an opportunity for people across the globe to make their voices heard independently of major climate movements. As social media platforms are a space in which actors (and especially the younger generation) protest against climate change<sup>6</sup>, PV can be used as a tool to foster a feeling of agency and empowerment through sharing video-based messages.

#### 2.2 Agency and Digital Skills

While young people have achieved a lot in shedding light on the urgency of climate mitigation and adaptation measures, there still remains a critical need to enhance their analytical skills in interpreting information related to climate science<sup>7</sup>. This empowerment is fundamental to shift from their perspective from being anxious or overwhelmed to being motivated and feeling encouraged to take actions and participate in political decisions<sup>8</sup>. In the same sense, although formal and informal education curricula address topics like democracy, digital skills and climate change, the current EU programs lack a specific focus on their intersection. Simultaneously, the digital gap in society is not only evident between youth and adults, or among educated individuals and those at risk of vulnerability. It also reflects a generational disparity in the use of social media. To this extent, PV emerges as a valuable tool in overcoming prejudices and stereotypes as youngsters who are often blamed to wasting time on pointless social media activities<sup>9</sup>. Furthermore, the Climatubers experience shows that PV can be effective in conveying messages via social media platforms while also serving an educational purpose. Related to this, it is important to highlight that while digital natives excel in social networking with their peers, they may feel some sort of discomfort in formal written communication (for example using word or sending formal emails)<sup>10</sup>. Moreover, the misuse of digital devices and social media among youngsters indicates the

<sup>&</sup>lt;sup>3</sup> MacDonald, J. P., Ford, J., Willox, A. C., Mitchell, C., Productions, K., Media Lab, M. W. S. A. D., & Community Government, R. I. (2015). Youth-Led Participatory Video as a Strategy to Enhance Inuit Youth Adaptive Capacities for Dealing with Climate Change. *ARCTIC*, *68*(4), 486. https://doi.org/10.14430/arctic4527

<sup>&</sup>lt;sup>4</sup> Haynes, K., & Tanner, T. M. (2015). Empowering young people and strengthening resilience: Youth-centred participatory video as a tool for climate change adaptation and disaster risk reduction. *Children's Geographies*, 13(3), 357–371. <a href="https://doi.org/10.1080/14733285.2013.848599">https://doi.org/10.1080/14733285.2013.848599</a>

Fetrequin, S. (May, 27, 2023). Cracks emerging in Europe's united front to battle climate change. Los Angeles Times. Retrieved from: <a href="https://www.latimes.com/world-nation/story/2023-05-27/cracks-emerging-in-europes-united-front-to-battle-climate-change">https://www.latimes.com/world-nation/story/2023-05-27/cracks-emerging-in-europes-united-front-to-battle-climate-change</a>

<sup>&</sup>lt;sup>6</sup> Boulianne, S., Lalancette, M., & Ilkiw, D. (2020). « School Strike 4 Climate": Social Media and the International Youth Protest on Climate Change. *Media and Communication*, 8(2), 208–218. https://doi.org/10.17645/mac.v8i2.2768

<sup>&</sup>lt;sup>7</sup> Laufer, N (November, 17, 2023). Greta Thunberg ist nur eines von vielen Problemen der Klimabewegung. *DerStandard*. Retrieved from : <a href="https://www.derstandard.at/story/3000000195553/thunberg-ist-nicht-fridays-gr246223te-sorge">https://www.derstandard.at/story/3000000195553/thunberg-ist-nicht-fridays-gr246223te-sorge</a>.

<sup>&</sup>lt;sup>8</sup> ACTED (October, 2020). Projet 1Planet4all: les jeunes et le changement climatique - Rapport de sondage. *Ifop pour ACTED*. Retrieved from: <a href="https://www.ifop.com/wp-content/uploads/2020/11/117428-Rapport-de-sondage\_VF.pdf">https://www.ifop.com/wp-content/uploads/2020/11/117428-Rapport-de-sondage\_VF.pdf</a>

<sup>9</sup> Kinderwelt von morgen. Visionen und Ängste, Falter Radio #1025, <a href="https://www.falter.at/falter/radio/6544d2bd8235ab001210e757/kinderwelt-">https://www.falter.at/falter/radio/6544d2bd8235ab001210e757/kinderwelt-</a>

von-morgen-visionen-und-angste-1025

<sup>&</sup>lt;sup>10</sup> Guillot, A. (October, 12, 2022). The digital divide isn't always where we expect it. *Philonomist*. Retrieved from: <a href="https://www.philonomist.com/en/article/digital-divide-isnt-always-where-we-expect-it">https://www.philonomist.com/en/article/digital-divide-isnt-always-where-we-expect-it</a>



importance of promoting a responsible way to use digital tools among citizenship in general terms, fostering knowledge, inclusion, responsibility, and action, instead of reinforcing habits of misuse or behaviours that boost isolation.

#### 2.3 Interconnecting Climate and Social Policies

Climate change is deeply tied to social inequalities, while social vulnerability can exacerbate adverse impacts for specific groups, including female-headed households, children, people with disabilities, ethnic minorities, or other marginalized communities 11,12. This vulnerability is exacerbated for specific social groups, rooted in geographical, socio-economic, cultural, and gendered factors, their vulnerability is further compounded by limited access to resources, decision-making power, and justice. The current climate narratives and policies lack the adequate and inclusive representation of social diversity and perpetrate a general lack of engagement from citizens and those communities who do not feel represented. The challenge seems to lie in introducing a fresh perspective and knowledge to the discourse on the intersection of climate and social vulnerability without perpetuating stigma against vulnerable communities<sup>13</sup>. Addressing climate change requires innovative and creative approaches that go beyond the conventional and include the voices and first-hand experiences of those who are left behind. In order to enhance social understanding of climate policies from an intersectional perspective, it is fundamental to create inclusive and safe spaces that enable broader participation in problem analysis and in solutions. On the other hand, establishing effective communication channels between communities and local authorities is essential to ensure not only that the voices of those left behind are heard but also that these individuals, with their specific perspectives and needs, are an integral part of the formulation of targeted solutions.

<sup>&</sup>lt;sup>11</sup> Ford, A., & Norgaard, K. M. (2020). Whose everyday climate cultures? Environmental subjectivities and invisibility in climate change discourse. Climatic Change, 163(1), 43-62.

<sup>&</sup>lt;sup>12</sup> Markkanen, S., & Anger-Kraavi, A. (2019). Social impacts of climate change mitigation policies and their implications for inequality. Climate Policy, 19(7), 827-844.

<sup>&</sup>lt;sup>13</sup> Mia A. Benevolenza & LeaAnne DeRigne (2019) The impact of climate change and natural disasters on vulnerable populations: A systematic review of literature, Journal of Human Behavior in the Social Environment, 29:2, 266-281



#### 3 Evidence and Method

The results and conclusions presented in this document are based on:

- a) a mixed-method evaluation assessment,
- b) policy dialogue sessions with political, social, and educational actors in the field of climate change (see the list of interview partners in the annex), and
- c) reviewing existing literature

Firstly, the mixed-method evaluation of Climatubers assessed workshop participants and workshop facilitators. Participants were assessed in a pre-/post-design using a quantitative questionnaire. Facilitators provided assessments using three methods: they provided their observations and reflections after workshop sessions in a structured questionnaire with open-ended and closed-ended questions; discussed their overall experience of implementing PV in qualitative semi-structured interviews after completion of all workshops; and reflected on their experiences with PV in a SWOT<sup>14</sup> analysis.

Secondly, actors such as local policymakers, social and youth workers, and representatives from educational institutions were involved in discussions focussing on four major themes:

- 1) Potentials and challenges of the PV method and previous experiences with participatory approaches.
- 2) Application and replication of the methodology of participatory video and digital storytelling in education;
- 3) Use of digital tools for fostering social change and social inclusion, PV for promoting active citizenship and its potential in social inclusion programs;
- 4) Climate change awareness and education and suggestions for the involvement of the social inclusion and vulnerability approach into climate action programs and policies.

For structuring the discussions, the Climatubers prepared an interview guideline of relevant topics. In total, 22 discussions were held: Spain (5), France (4), Austria (4), Estonia (3), Italy (6).

Thirdly, European-level and national literature (including research papers, reports, and policies/strategies) were reviewed and included throughout the recommendations to provide a firm foundation and improve the recommendation's relevancy and applicability.

<sup>&</sup>lt;sup>14</sup> Strengths, weaknesses, opportunities, and threats.



## 4 Key findings of the PV pilots in 5 local contexts

This section presents main results and conclusions gathered during the implementation of T5.1 and T5.2 of the Climatubers project, which are also reported in the Output 5.1 *Group Evaluation and Framework Analysis Report.* 

#### 4.1 Impacts

Of training on digital skills - The training and development of digital skills is an essential part of the PV implementation. The Climatubers lessons learned highlighted that participants found mastering digital skills appealing during recruitment, with expectations of practical applicability in daily life and job-related tasks. The evaluation showed that younger individuals excelled in advanced skills like filming and editing, while elderly needed more time to acquire basic skills, highlighting the need for extra resources in specific groups. Hence, the digital skills training as part of PV can contribute to inclusion by improving employability and enabling communication, as well as access to information. However, the digital divide should be considered, as it influences how participants can benefit from the method.

Of group work and dialogue with others - PV involves collective management of tasks, roles, and a shared vision, and engaging with various individuals (experts, policymakers, or strangers). Expected benefits include enhanced social skills and a sense of empowerment. However, evaluation results present a mixed picture. Participants self-assessed no improvement in social skills or confidence, but facilitators observed increased confidence and self-determination, particularly in expressing ideas on camera. Positive collaboration and communication with experts were noted, fostering a sense of inclusivity. Facilitators highlighted PV as a platform for exploring climate issues within communities, promoting a sense of agency. Yet, the long-term impact on social inclusion, participation beyond the community, and influence on climate policies remains uncertain.

Of addressing climate change in PV - The Climatubers project used the PV method to raise awareness of climate injustice and vulnerability. Participants initially had limited awareness of climate change, its local impacts, or the concepts of climate vulnerability and inequality. During the workshops, they gained knowledge about climate change and their perception of climate change as something distant changed, **improving awareness**. However, addressing inequality and vulnerability proved challenging, as it was important to avoid stigmatisation. Facilitators discussed vulnerability on a more abstract level, rather than explicitly considering individual or community perspectives. A more targeted approach to climate vulnerability for specific groups would have enhanced the project.

PV facilitated the **local dialogue on climate change** by connecting to participants' immediate experience, making this abstract concept more tangible. Topics like environmental degradation or recycling established a local connection to be explored, in some instances with the involvement of experts and policymakers. As already discussed, the PV method provided a forum for participants to collectively reflect on these local issues, and some were motivated to take action. However, we have no evidence that these motivations were taken up by policymakers or resulted in more citizen participation in climate policy.

## 4.2 Challenges of PV process implementation

Main challenges of PV implementation lie in the contradiction between its participatory design and external requirements; the resource-intensive nature of the PV process and the heterogeneity of participants.

Adjusting the degree of participation - In a participatory process, participants need to feel responsible and control the video themes, utilising digital, creative, organisational, and social abilities. However, practical challenges arose: some struggle to connect with local climate change impacts, while project goals require climate change content. Varied skill levels result in difficulties filming or editing independently. To maintain the participatory element, facilitators suggest assessing skills beforehand, adapting content and schedules, and establishing local connections for better exploring the video themes. For example, participants could start by filming in different city locations to familiarise themselves with local contexts.



Allocating enough resources to engage participants and for the implementation - Participatory video production on complex topics like climate change is resource-intensive in both preparation (including participant recruitment) as well as in implementation. During preparation, facilitators faced challenges in engaging socially excluded groups and conveying the purpose and benefits of participation. Engagement through civil society organisations proved more successful than individual outreach, although participants from organisations showed less intrinsic interest. Facilitators recommend adapting engagement strategies based on target groups' needs, emphasising the use of digital tools or potential interaction with policymakers. Successful PV implementation requires sustained participant commitment, which is particularly challenging with hard-to-reach groups. Implementation demands significant time, involving multiple facilitators with diverse expertise. Outsourcing specialised tasks can help, but it requires an additional budget. If resources are limited, simplifying PV by working with homogeneous or digitally literate groups is suggested.

Facilitating with flexibility and adaptability - Participant heterogeneity, including differing interests and skills, posed challenges for the structured PV method. Facilitators had to be flexible, adapt didactic approaches, and address issues like participant disinterest in climate change or slower progress in digital training. Heterogeneity necessitates method modification for each group, emphasising aspects relevant to specific demographics. Working within existing frameworks (e.g., programmes where participants are involved) can reduce this complexity. Overall, the results from the pilots show that PV is not a formulaic method, but requires knowing the participants, developing a relationship of trust, flexibility, and adapting to participants' needs. Facilitators should be open to any results, as the emphasis of PV lies in the collective process of creation, not its product. These requirements can be both a benefit and limitation of PV.

Adapting the communication language - Adapting an understandable language while discussing the methodology of participatory video presents a multifaceted challenge, particularly in contexts where this approach isn't widely recognized or acknowledged (e.g. in the Italian pilot). The target groups were generally not familiar with PV, especially those from disadvantaged backgrounds who might lack access to resources or exposure to such methodologies. Communicating the intricacies of participatory video to these groups demands a delicate balance of simplifying complex concepts without undermining their significance. It involves crafting explanations that resonate with the lived experiences and perspectives of these communities, bridging the gap between the technical jargon often associated with participatory video and the practical realities these groups face. Furthermore, the challenge extends to not only making the methodology understandable but also cultivating trust and engagement within these communities, ensuring they feel empowered and valued in the participatory process. This might require employing culturally sensitive approaches, employing local languages, storytelling techniques (in the case of Italy) and visual aids to enhance comprehension and foster genuine participation.



## 5 Policy recommendations

The following recommendations are directly based on the implementation of Climatubers in specific contexts across Austria, Italy, Spain, Estonia, and France; are informed by evaluation results, discussions and interviews with relevant actors, and related literature; and address the three cross-cutting challenges defined above.

## Recommendation 1: Provide spaces for deliberating climate change for all citizens

Context: Many social groups do not actively participate in the current discourse on climate change, despite disproportionately experiencing its adverse effects<sup>15</sup>. These groups may not perceive a direct connection to climate change debates, feel overlooked, or not see climate change as a challenge relevant for their lives. Existing offers for participation oftentimes resonate only with those segments of the population who are already active and well equipped to participate (e.g., due to higher resources in time and money), do not consider the linkage between social vulnerability and climate change 16, or lack a tailored approach to engage diverse audiences. Digital participation and online activism are characterised by the same barriers to access, particularly for marginalised groups 17. Thus, there is a need to develop and provide different formats of climate change engagement which consider marginalised groups. Particularly when developing strategies against climate change, the knowledge of vulnerable and marginalised social groups should be incorporated to develop effective, just, and targeted climate policies 18. Even though the participation of some groups such as multilingual persons has improved, participants with lower formal education and physical or intellectual disabilities are still underrepresented<sup>19,20</sup>.

Intervention: We recommend developing and providing inclusive spaces for dialogue and deliberation, which foster exchanges among individuals from diverse backgrounds and thereby contribute to a more comprehensive and representative discourse on climate change. Several measures for providing these spaces and ensure access can be taken:

- Perform a comprehensive map and gap analysis to identify societal groups that are underrepresented in the local or regional climate debate. This analysis will serve as a foundation for targeted engagement strategies.
- Create a robust engagement strategy that outlines communication and outreach methods tailored to the specific needs of target groups (e.g., people with low formal education, with disability, or who are excluded from the right to vote due to their citizenship) and which are implemented where life of the target group takes place.
- Collaborate with multipliers associations, representative bodies, etc. to access diverse communities. Climatubers partners in Italy created two partnerships 1) with high schools to incorporate Climatubers in a programme dedicated to improving students' soft skills and 2) a public environmental education centre. Another opportunity for smaller countries, like Estonia, is to cooperate in international networks, such as specific Baltic or northern European networks<sup>21</sup>.

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<sup>15</sup> News From The Nation's Health. (2017). American Journal of Public Health, 107(1), 8-8. https://doi.org/10.2105/AJPH.2016.303519 Ngcamu, B. S. (2023). Climate change effects on vulnerable populations in the Global South: A systematic review. Natural Hazards, 118(2), 977-991. https://doi.org/10.1007/s11069-023-06070-2

<sup>&</sup>lt;sup>16</sup> Arthurson, K., & Baum, S. (2015). Making space for social inclusion in conceptualising climate change vulnerability. Local Environment, 20(1), 1-17.

<sup>&</sup>lt;sup>17</sup> George, Jordana J. and Leidner, Dorothy E., "Why Marginalized Groups Struggle to Leverage Digital Activism" (2018). AMCIS 2018 Proceedings. 7.

<sup>18</sup> Rhoades, J., Gruber, J., & Horton, B. (2021). Enhancing Vulnerable Groups' Resilience to Climate Change: Lessons Learned from a Case Study with Older Adults. Journal of Community Engagement and Scholarship, 13(2). https://doi.org/10.5

<sup>19</sup> https://bjv.at/inklusionsbeirat-bjv/

<sup>&</sup>lt;sup>20</sup> Interviewed Partner A2

<sup>&</sup>lt;sup>21</sup> Interviewed Partner E3



- Consider collaborating with community leaders persons that are well connected in their community and can act as door openers for reaching and engaging target groups.
- Minimize barriers to participation by providing essential support, such as childcare services, choosing convenient timings (e.g., weekends), and compensating for expenses and meals. Think of access-free information, e.g., braille, large print, audio, sign language, etc.
- Fund grass-root projects: Grass-root projects are oftentimes overlooked in climate change initiatives. A broad funding scheme which explicitly promotes climate action can help to develop solutions which are adapted to a local context. This may also foster an enrichment of locals who pursue similar interests.

<u>Potential role of PV:</u> Participatory video facilitates a collective process of creation, thereby providing spaces for reflection and discussion, exploring the potential for climate action, and promoting participation and meaningful engagement. As PV can also improve digital and social skills, it equips participants with the tools to make their voices heard. Previous case studies<sup>22</sup> of PV demonstrate how it was used as a strategy to engage marginalised communities with climate change, empowering them to share their insights and knowledge on the realities of their own lives and how they experience the impacts of climate change. Based on these case studies and our own experiences in the Climatubers project, we recommend PV as a valuable tool for empowering and including any citizen in decision-making. Due to its emphasis on the process of collective creation, reflection, and shared narratives, PV is an accessible method for empowering marginalised groups to develop their own understanding and use their voice for climate action.

Expected outcomes: The recommended interventions aim to foster engagement and collaboration within communities to develop a shared understanding of climate change and its impacts through careful analysis of underrepresented groups, tailored engagement strategies, funding, and minimising barriers to access. Accessible and reflective tools like PV can particularly appeal to marginalised and vulnerable communities. In using PV as a tool in this process, new individual and community narratives on climate change are developed and potential actions are explored. It also fosters a feeling of empowerment as community members express and share their perspectives and experiences in a common space.

MacDonald, J. P., Ford, J., Willox, A. C., Mitchell, C., Productions, K., Media Lab, M. W. S. A. D., & Community Government, R. I. (2015). Youth-Led Participatory Video as a Strategy to Enhance Inuit Youth Adaptive Capacities for Dealing with Climate Change. *ARCTIC*, *68*(4), 486. <a href="https://doi.org/10.14430/arctic4527.">https://doi.org/10.14430/arctic4527.</a>

<sup>&</sup>lt;sup>22</sup> Haynes, K., & Tanner, T. M. (2015). Empowering young people and strengthening resilience: Youth-centred participatory video as a tool for climate change adaptation and disaster risk reduction. *Children's Geographies*, *13*(3), 357–371. <a href="https://doi.org/10.1080/14733285.2013.848599">https://doi.org/10.1080/14733285.2013.848599</a>.



## Recommendation 2: Address climate change as part of people's realities and experiences

Context: Different social groups also differ in their responses to and perceptions of climate change. While certain social groups and individuals actively engage with and respond to these topics, others exhibit disinterest. There are different reasons for this disinterest: in some cases, the reason they don't engage with the topic is that they are busy meeting urgent basic needs, such as finding a job, housing, or learning the local language to access the labour market. But other times, there is a clear difficulty in addressing climate change because it is perceived as something too far and too negative that we, as individuals, are not able to change. In many contexts, the lack of climate change awareness becomes a barrier to participation<sup>23</sup>. Local initiatives such as the Lokale Agenda 21 in Vienna<sup>24</sup> underscore the importance of tailoring climate-related participatory actions to the local context and local goals, such as creating livelier streets or enhancing green space. Starting with this local and practical approach can serve as a pathway for broader discussions on climate-friendly solutions, including transportation alternatives, and eventually initiate discourse on climate mitigation strategies at a more general level. Thus, engagement processes should recognize the efficacy of starting from tangible and relatable local examples to stimulate inclusive community engagement on climate-related matters.

<u>Intervention:</u> Experiences made in the Climatubers project show that the complexity of climate change can be overwhelming and act as a barrier to dialogue. To reduce this complexity, participation processes should address those issues that participants are already familiar with, or which are relevant in participants' lives and their local contexts. To address climate change as part of everyday experiences, we suggest the following strategies:

- Reduce complexity. The topic of climate change should be approached using simple and non-technical language, focussing on environmental issues that participants are already familiar with, such as pollution or recycling. Often, there is a need to focus on the causes of new phenomena that citizens are struggling to get used to, such as drought, floods, or heat waves. Also, it is important to include examples that show how local policies can have an impact in the global mitigation of climate change<sup>25</sup>.
- Offer formats where citizens can co-create communal spaces. Engaging local inhabitants in a decision-making process via citizen deliberation can create a genuine sense of participation and involvement in cultivating a climate-friendly environment. This process can not only foster meaningful and climate-friendly interventions in public spaces but also foster a sense of self-efficacy. For instance, the Wiener Klimateam<sup>26</sup> opened up participation processes by allowing citizens to submit their ideas for a climate-friendlier city in a very unbureaucratic way (and with optional professional support) for improving public spaces. Another option is implementing small, temporary projects focussing on practical activities resulting in immediate changes in the local environment, for instance upcycling plastic or reducing food.<sup>27</sup> One example is *Participatory Budgets* in Granollers, a triannual program promoted by the City Council that allows citizens to propose, vote, and decide detailed interventions in public spaces with a maximum budget <sup>28</sup>.
- Perceive citizens as experts in their own lives. The Estonian and French pilots stressed that participants often needed encouragement to express the problems important to their lives, as they felt that they were not relevant. Encouraging citizens as experts of their reality and highlighting the importance of the challenges they face, can promote a better engagement with climate change. One step further would be to include the citizens in a real framework for designing solutions. In Granollers, some participants expressed their wish to not only be "collectors or transmitters of personal experiences" but also an active part of the design and implementation of climate solutions, stressing

<sup>&</sup>lt;sup>23</sup> Interviewed Partner S2

<sup>&</sup>lt;sup>24</sup> Interviewed Partner A4

<sup>&</sup>lt;sup>25</sup> Interviewed Partner S2

<sup>&</sup>lt;sup>26</sup> Deine Idee fürs beste Grätzl, an initiative for participation by the City of Vienna, retrieved from: https://klimateam.wien.gv.at/

<sup>&</sup>lt;sup>27</sup> Suggested by Interview Partners from Austria and Estonia (A2, E2)

<sup>&</sup>lt;sup>28</sup> City of Granollers, Del 19 d'abril al 3 de maig es poden votar els Pressupostos Participatius 2019-2023, Participative Budgeting initiative promoted by the City of Granollers, retrieved from: <a href="https://www.granollers.cat/noticies/sala-de-premsa/del-19-d%E2%80%99abril-al-3-de-maig-es-poden-votar-els-pressupostos-participatius-0#">https://www.granollers.cat/noticies/sala-de-premsa/del-19-d%E2%80%99abril-al-3-de-maig-es-poden-votar-els-pressupostos-participatius-0#</a>



their influence towards the community as replicators of good practices<sup>29</sup>. Therefore, citizens are not only holding relevant expertise on climate change, but they can also become ambassadors for climate change solutions.

<u>Potential role of PV:</u> The PV methodology could be implemented in several ways (e.g. in the assessment phase of needs and ideas). A PV film could show why a specific situation needs to change and what community members think or expect of a solution for the neighbourhood. PV puts the participants in the centre, not only by valuing their point of view (making their voices heard) but allowing them to become the actors of change: citizens not only want to "express" their problems but propose solutions. They want to be part of the mitigation actions and they are interested in calling for action to politicians and other citizens. With PV, they can actively look for answers (by interviewing experts, and other citizens, getting to know other projects or experiences, etc). Therefore, PV should be considered as a tool to address climate change as part of people's realities.

Expected outcomes: People feel empowered because they act as experts in daily life, and they can have a real impact on their communities. Their knowledge is valuable, and they can express it autonomously and use it to change their environment. People can access also complex topics if they can use a common language and address problems in their everyday lives. Acting within a group through a co-creation or participatory process can facilitate the development of new solutions and provide participants with a feeling of ownership over the result.

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<sup>&</sup>lt;sup>29</sup> Stakeholder interview ES2 in the Final Conference of Climatubers (Barcelona, 24th November 2023).



## Recommendation 3: Use PV to connect citizens and local authorities to cocreate participatory policies

Context: For citizens to have a voice in the creation of policies that affect them directly, it is important to provide a space of co-creation where individuals can discuss first-hand with public authorities about the importance of designing policies that include their needs. The involvement of citizens in this type of processes can create genuine influence on political decision-making, therefore making participants aware that their efforts have a tangible impact as well as the power to create synergies for a common objective. Failure to achieve real changes or outputs from participation processes can erode citizens' trust in the system, therefore leading to a shared disengagement with local authorities<sup>30</sup>.

Intervention: The Climatubers project advocates for a shift towards co-creation in politics and policymaking, especially in climate change, defending a more open process and the redistribution of decision-making power where citizens have an active role. Solutions need to adopt inclusive and participatory approaches with the aim of engaging all target groups, including vulnerable communities who can sometimes be hard to reach but can find participatory processes a good method to share their needs and experiences. Involved groups should experience ownership throughout the participatory process by developing their own tasks and responsibilities. To emphasise the need for inclusion and representation in decision-making processes, it is extremely important to advocate for the commitment of public authorities in these processes to facilitate dialogue between citizens and policy. More specifically, the Climatubers project recommends:

- Setting up co-creation processes for understanding local needs. Establishing a dialogue between local citizens and authorities is key to foster a mutual exchange in targeting climate change issues. The objective is to create tailored policies that can properly address citizens' needs. Especially on a local level, this might foster a sense of belonging and evolvement for locals towards public administration. At the same time, policymakers can familiarize themselves with a variety of realities and diverse viewpoints.
- Setting up co-creation processes for designing climate mitigation and adaptation policies which involve both citizens and elected representatives or civil servants from local public authorities. The objective is to include citizens in the process of creating climate mitigation and adaptation measures, especially vulnerable communities, as they are the most affected by climate change and require an active involvement in shaping policies that positively impact their lives. It is acknowledged that these processes are resource-intensive, as they require different assets e.g., facilitators involvement, finding time slots, creating additional tasks for administrative staff, establishing periodic meetings. However, the experiences made in the Climatubers project, and the input given by the experts<sup>31</sup> show that involving these different stakeholders lead to an improved process and impact, therefore empowering all stakeholders through their interaction and peer-learning.
- Promoting the dissemination of participatory tools (such as PV) among political stakeholders in order to tackle climate change. As the Climatubers partner from Italy pointed out, political stakeholders and administrative bodies involved in the project were not familiar with PV and had no information of it being applied among public bodies in Sardinia. Further, it would be necessary to conduct training sessions with policymakers or administrators on participatory video techniques, emphasising its role in amplifying diverse voices and perspectives within climate policy discussions. Afterwards, training sessions should also be addressed to citizens.

<u>Potential role of PV:</u> PV can be used as a tool by citizens to share specific local climate challenges and raise awareness about people's lives, views, and needs. Additionally, it can be applied as a methodology for collaborative projects where stakeholders, civil servants, and citizens collectively brainstorm and plan a participatory video project focusing on climate policies. PV can bridge these two sides with the aim of creating

<sup>&</sup>lt;sup>30</sup> Fitzgerald, C., McCarthy, S., Carton, F., O Connor, Y., Lynch, L., & Description on the decision one make a difference? Journal of Decision Systems, 25(sup1), 248–260. https://doi.org/10.1080/12460125.2016.1187395

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meaningful policies. PV can also be used as a messaging tool between citizens and public authorities, as three examples from the Climatubers project have shown. In France, a civil servant responded to Climatubers participants by joining a workshop to record answers of her own. In Spain, a video conference was organised with a civil servant to discuss the situation of local public transport. In Italy, Climatubers participants could voice their concerns to the Director of Environmental Matters from the Municipality of Oristano.

Expected outcomes: Facilitating an exchange in which citizens generate ideas and local policymakers or public authorities implement them, for the benefit of mutual learning effects. During this exchange, citizens can gain knowledge on required administrative processes or costs of implementation. In turn, policy representatives gain understanding of the needs of citizens regarding climate change. Both sides can enter an informed negotiation process, where the perspective of the other is clearer and more understandable. The experience of being acknowledged as part of the political process and actively participate in the creation of climate resilience initiatives can promote individuals' and communities' empowerment and social inclusion, while the social acceptability of the co-created policies increases.



Recommendation 4: Provide frameworks and resources so that citizens and communities can use PV for establishing links, sharing their message, and fostering public debate

Context: Divides and gaps also exist within one city, community, or neighbourhood. For instance, it might be the case that not all citizens feel legitimate to voice their opinion or feel that their concerns are relevant, as was the experience in the French Climatubers pilot. Moreover, the Climatubers project demonstrated gaps in digital literacy, a phenomenon which is influenced by age, gender, and socioeconomic background<sup>32</sup> and can be observed worldwide. Some social groups, such as elderly or women, are particularly affected by poorer access to digital technology. In addition, migrants or individuals with lower socio-economic status are also more likely to face digital exclusion<sup>33</sup>. Digitalisation for social inclusion encompasses a wide spectrum of challenges, amongst them dematerialisation of services, meaning that access to public goods and economic participation increasingly requires using digital tools and services. Digital empowerment can therefore be a strong tool for enabling full participation in community and social life<sup>34</sup>.

<u>Intervention:</u> PV has emerged as a method with the potential of addressing both social and digital exclusion by supporting communities through digital skills training and enabling their access to digital resources and facilitation support. It thus promotes collective empowerment through the use of digital media by **providing space to develop one's perceptions and collective reflection on common issues**. In PV processes, citizens are guided by a facilitator to discuss their concerns with their peers, while during the video production, individual perspectives can be both legitimized and shared as a group. In turn, other peers can reflect on these messages and reply with a discussion in order to produce a final video. More specifically, we recommend:

- Provide communities with access to PV resources. Both the lack of prior knowledge, digital skills and access to digital resources may increase the digital divide, as in the case of adults when compared with children. It is also important to recognize that access has a different meaning across diverse communities, requiring a meticulous planning for resource sharing and active promotion at different levels. It is fundamental to note that hardware accessibility alone does not equate to digital inclusion. Individuals experiencing digital exclusion might need intermediaries (facilitators in the context of Climatubers) who are trusted individuals capable of guiding the use of digital tools, providing support, and avoiding any fear<sup>35</sup>.
- Support the identification of shared interests in the community. The Climatubers experience demonstrates that initiating activities within the local context serves as a catalyst for diverse participation. Practical examples drawn from everyday life are particularly effective in eliciting a multitude of voices and perspectives. By identifying a shared interest, like creating a livelier street, community members can come together to explore options. However, this does not exclude global issues: in the Estonian Climatubers pilot, young people shared interests about digital waste and clothes overconsumption, as these were the topics that they have financial responsibility for, while other local issues were beyond their scope.
- Social inclusion is enhanced by supporting those individuals that would not usually interact to work
  for common goal. In an era of demographic change and increasing individualisation, neighbourhood
  collaboration becomes a valuable instrument for building social communities. A PV project, for

<sup>&</sup>lt;sup>32</sup> Ball, C., Francis, J., Huang, K.-T., Kadylak, T., Cotten, S. R., & Rikard, R. V. (2019). The Physical–Digital Divide: Exploring the Social Gap Between Digital Natives and Physical Natives. *Journal of Applied Gerontology*, 38(8), 1167–1184. <a href="https://doi.org/10.1177/0733464817732518">https://doi.org/10.1177/0733464817732518</a>

<sup>&</sup>lt;sup>33</sup> Longoria, I. A.-I., Bustamante-Bello, R., Ramírez-Montoya, M. S., & Molina, A. (2022). Systematic Mapping of Digital Gap and Gender, Age, Ethnicity, or Disability. *Sustainability*, 14(3), 1297. <a href="https://doi.org/10.3390/su14031297">https://doi.org/10.3390/su14031297</a>

<sup>&</sup>lt;sup>34</sup> TAAFE (2022). Strategy on the development of age-friendly environments in the AS, retrieved from : <a href="https://www.alpine-space.eu/wp-content/uploads/2022/10/to.t.4.1\_taaf-strategy-for-an-age-friendly-as.pdf">https://www.alpine-space.eu/wp-content/uploads/2022/10/to.t.4.1\_taaf-strategy-for-an-age-friendly-as.pdf</a>

<sup>&</sup>lt;sup>35</sup> TAAFE (2022). Strategy on the development of age-friendly environments in the AS, retrieved from : <a href="https://www.alpine-space.eu/wp-content/uploads/2022/10/to.t.4.1\_taaf-strategy-for-an-age-friendly-as.pdf">https://www.alpine-space.eu/wp-content/uploads/2022/10/to.t.4.1\_taaf-strategy-for-an-age-friendly-as.pdf</a>



- instance focusing on climate-related or urban planning issues, can serve as an effective tool for initiating conversations and facilitating collaboration.
- Promote digital skills education for every citizen. Digital tools can be also adopted by individuals with no technological background, as found in the majority of Climatubers pilots. However, to achieve this, it is important to avoid assumptions that some specific population targets as youngsters have by default the right knowledge when compared with other demographics. Climatubers has proved that this might not always be the case<sup>36</sup>. The use of digital tools can be trained by developing targeted actions, considering diversity of backgrounds and creative proposals such as intergenerational learning sessions or mentoring roles that can strengthen social inclusion. Nevertheless, PV skills need to be developed by the group and resources need to be well planned beforehand.

Potential role of PV: PV is a tool that has the potential to tackle all the challenges mentioned above. it motivates participants to cooperate on a common project, hence strengthening social relationships. At the same time, by engaging participants of different age cohorts, it creates an understanding for the sensible use of digital tools and makes viewpoints and engagement of young people visible. Further, PV can enable knowledge of how climate change affects communities differently based on socioeconomic context, age, gender, and origin. It can highlight the various impacts and levels of the climate crisis, leading to the development of more targeted and effective policies. PV serves as a catalyst for joining a common cause, fostering a shared understanding of climate change impacts. For instance, Let's Clean Up Europe 2022/23: nature cleaning activities in Granollers, organized by the Climatubers participants and completed with other citizens and the Photo exhibition 2022 in Roca Umbert Public Library, in Edison Cinema and in the Federation of Neighbourhood Associations are two initiatives that have strengthened commitment within the community.

<u>Expected outcomes:</u> Empowered communities equipped with the knowledge and skills to advocate for their rights and actively participate in climate resilience initiatives.

<sup>&</sup>lt;sup>36</sup> OECD/Rebecca Eynon (2020). The myth of the digital native: Why it persists and the harm it inflicts. In Burns, T. and F. Gottschalk (Eds.), *Education in the Digital Age: Healthy and Happy Children*. OECD Publishing, Paris. https://doi.org/10.1787/2dac420b-en.



#### Recommendation 5: Build or join a community of practice for implementing PV

<u>Context:</u> Planning, initiating, and sustaining participatory processes is challenging due to the multitude of requirements: engaging and motivating participants in the long-term, facilitating the process, guiding, and training participants in different subjects and skills, or developing resources. During the development of the Climatubers project, the exchanges between partners have been both rich and crucial. They have allowed facilitators and coordinators in the consortium to share knowledge and tips, to build confidence, keep the motivation up, and to learn from each other's experiences.

<u>Intervention:</u> **promote the exchange between practitioners** when introducing a participatory programme or organising an engagement process, such as Participatory Video. This includes training (mainly collective training), running their project in parallel, and continuous interactions.

- For implementing participatory video, it is important that at least part of the practitioners masters the needed digital skills (related to video but also to the dissemination), either through the training or because they had acquired these skills beforehand. When practitioners have opportunities to meet, exchange and share their knowledge, these skills held by some of them can benefit the whole group of practitioners, limiting the need for a complete training because PV does not require a high level of digital skills.
- For optimal implementation, we recommend creating or joining a local, country-based, or EU-level network of practitioners so that they can support each other and build a common experience (e.g., through a mailing list or online messaging channel). Organising live events on top of messaging tools or channels is a must as they improve the sense of belonging, mutual trust and readiness to contact each other. Those events can be online (webinars, online workshops, etc.) or offline for practitioners of the same area.
- Promoting exchange can also support the sustainability of facilitators' experiences by connecting completed and new initiatives, learning from past implementation, and maintaining experiences and skills. For this, PV promoters should either connect with local organisations, or train them to guarantee the local history and context is properly taken into account. The formal or informal network plays the role of knowledge continuity across organisations. Facilitators with the experience of PV may leave their organisation, but if they have shared their knowledge in the network, it will be transferable to new facilitators joining in.

<u>Potential role of PV:</u> PV can be used to showcase a key message from the community of practice in order to foster social cohesion or enhance climate resilience or cast light on environmental related injustices.

<u>Expected outcomes</u>: **Practitioners feel more secure** in establishing this new kind of project/topic, their skills complement each other and **improve the quality of the projects** (for example one of them has a good expertise in climate change pedagogy, the other in video editing, etc.). Moreover, a lively network fosters motivation, a **sense of belonging** and also ensures the **sustainability of PV over time**, even if practitioners leave their organisation.



## Recommendation 6: Use interdisciplinary approaches for addressing climate change holistically in formal and non-formal education

Context: During COP26 in Glasgow, the conclusions drawn by the ministers of education and environment acknowledged the significant gaps that persist in providing everyone with knowledge, skills, values and attitudes needed to effectively participate in the transition towards climate positive societies. In the same year, a UNESCO study of almost 50 countries revealed that less than half of these nations had included any reference of climate change in their educational policies<sup>37</sup>. Even if climate change education is integrated in the school curricula, students may not learn enough to give them the knowledge and tools to cope with the impacts of climate change. Just learning about climate science is not enough, as it is difficult to translate awareness into action<sup>38</sup>, find pathways towards action, and cope with negative feelings or eco-anxiety<sup>39</sup>. Frameworks such as Article 12 of the Paris Agreement similarly recognise the need for qualitative education covering climate science, training, public awareness, and participation, as well as public access to information.

Intervention: We propose an inclusive and comprehensive approach to addressing climate change education across both formal and informal learning environments. Utilizing methodologies such as PV can facilitate connections between different disciplines (i.e., natural sciences and social sciences) and avoid fragmentation and silo-thinking when discussing climate change. Both in informal and formal education, the connection between awareness and action as well as active (citizen) participation should be emphasised. In this sense, the principles of non-formal education be applied to create educational content that prioritizes learners, offers hands-on experience, and encourages reflective thinking to create a more solutions-based and action-oriented process<sup>40</sup>. In addition to knowledge- and action-based education, social and emotional learning should be promoted to empower individuals as catalysts for change, equipping them with the necessary knowledge, abilities, mindsets and, most importantly, tools essential for steering our societies towards a sustainable, ecofriendly transformation. To promote the holistic education on climate change, we recommend:

- Invest in the capacity building and training of teachers and educators. Teachers and educators must be supported in teaching climate change from a comprehensive perspective. They should have the necessary tools and resources to turn schools into important learning spaces for climate change while remaining updated with developments in climate research and policy.
- Revise the curricula and education content to teach diverse aspects of climate change. The topic of climate change must be broadened to address the socio-economic and political factors underlying climate change. An important focus must be given to climate-vulnerabilities, climate justice, climate equality and climate migration. Many of the current curricula are more concentrated on the environmental consequences of climate change while only superficially touching social aspects<sup>41</sup>. Likewise, most of the participants involved in Climatubers were not aware of concepts such as climate vulnerability or climate inequality. Lastly, the learning contents should be contemporarily adapted to the local landscape and global issues.
- Provide enough space and resources for adapting PV to a new educational context. While PV is a versatile method, it also requires effort to adapt it to a new context or specific resources for a new target group<sup>42</sup>. In the case of Climatubers, the collaboration with institutions will provide the room for new applications in formal education: in Spain, PV will be integrated in the training of teachers together with the Catalan Board of Education, whereas in Italy, the training approach tested in Climatubers will be replicated in other schools in Cagliari. The Climatubers resources can be used in these situations, but our suggestion is to make sure to give room to the teachers to adapt the methodology to their context, or even better, provide specific resources for that target group.

<sup>&</sup>lt;sup>37</sup> UNESCO. (2021). Learn for Our Planet: A Global Review of How Environmental Issues are Integrated in Education. United Nations Educational, Scientific, and Cultural Organisation, Paris, France. Retrieved from: https://unesdoc.unesco.org/ark:/48223/pf0000377362 Whitmarsh, L. (2009). Behavioural responses to climate change: Asymmetry of intentions and impacts. Journal of environmental psychology, 29(1), 13-23.

se Léger-Goodes, T., Malboeuf-Hurtubise, C., Mastine, T., Généreux, M., Paradis, P. O., & Camden, C. (2022). Eco-anxiety in children: A scoping review of the mental health impacts of the awareness of climate change. Frontiers in Psychology, 13, 872544.

<sup>40</sup> Stakeholder interview I2

<sup>&</sup>lt;sup>41</sup> Stakeholder interview I1 42 Stakeholder interview F3



Use engaging project-based approaches to discuss climate change in an interdisciplinary manner. The experiences from the Climatubers pilots have demonstrated that implementing a project on climate change that requires exploration, task management, and dealing with social and group dynamics can provide more practical insights into climate issues, fostering discussions, and encouraging collective problem-solving. This approach to education can prove more effective in encouraging students to participate in collective and local action, as was the case for some Climatubers participants in Italy and Spain.

<u>Potential role of PV:</u> Methods such as PV which promote visual and narrative expression can be used as a basis for an interdisciplinary project, as it encompasses many different skills and emphasises diverse viewpoints.

<u>Expected outcomes:</u> Climate change education promotes not only knowledge of the environment, climate change and the associated challenges, but also fosters attitudes and motivations to make informed decisions and take responsible action. To build the capacities of teachers and educators to empower youngsters and guide them toward proactive engagement in sustainable practices, catalysing collective action and long-term resilience against climate change.



## Annex: List of interviewed stakeholders in the policy dialogue

Country	Code	Area of expertise	Primary sector
Austria	A1	Manager of mobile youth work	Social sector
Austria	A2	Climate department, City of Vienna	Local policy / administration
Austria	A3	Head of district in Vienna	Local policy / administration
Austria	A4	Head of local initiative for sustainable city development	NGO
Austria	A5	Association for Environmental Education	Education & training
France	F1	Sensitization manager in Local Energy Agency, Lyon Métropole	Local policy / administration
France	F2	Training project officer at GRAINE, the regional network for environmental education	Education & training
France	F3	Communications & community manager, Office for Climate Education	Education & training
Estonia	E1	Educator, Design Lead, and Researcher at European Climate projects	Education & training
Estonia	E2	Company CEO and member of the EdTech Estonia cluster	Private sector
Estonia	E3	Communications Expert on Climate & Environment topics	STI



Italy	I1	Educator in the field of sustainable development and climate.	Education & training
Italy	12	Expert in environmental education and responsible for directing and environmental education centre.	Education & training
Italy	13	Youth worker and trainer in the field of non-formal education	Education & training
Spain	S1	Councillor of the Environment and Green Areas Department of Granollers City Council	Local policy / administration
Spain	S2	Head of Citizen Participation and Youth Departments of Granollers City Council.	Local policy / administration
Spain	S3	Technician of the Education and Youth Departments of Granollers City Council. Coordinator of programs for youth among 12 and 17 years old.	Local policy / administration
Spain	S4	Coordinator of Edison Cinema and related activities for youth.	Culture