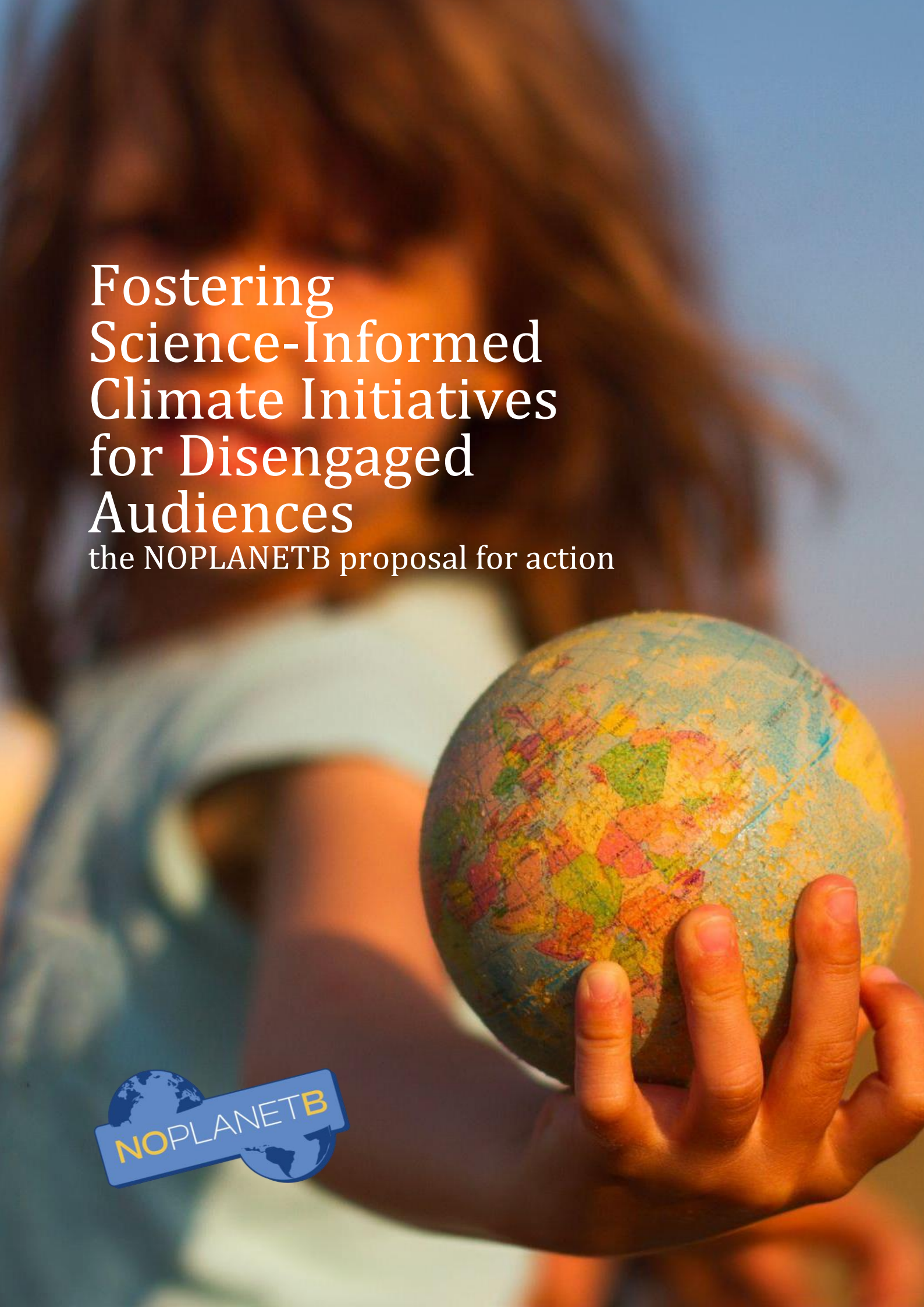


Fostering Science-Informed Climate Initiatives for Disengaged Audiences

the NOPLANETB proposal for action

NOPLANETB

INDEX

INTRODUCTION

NOPLANETB - Bridging Science and Society to Foster Inclusive Transition Strategies (NOPLANETB) is a four-year Action approved by the European Commission under the DEAR program, implemented in eight European Union countries: Portugal, Spain, Italy, France, Germany, Hungary, Poland, and Estonia[1].

The Action aims to select and support around 200 small-sized Civil Society Organizations (CSOs) across these countries, which often lack the financial, administrative, or operational capacity to apply directly for EU funding. These CSOs will receive both financial and capacity enhancement support to promote science-based solutions and equitable transition practices and policies. The objective is to engage across these 8 countries around 50,000 people, emphasizing engagement of youth and women, with a final outreach to over 1.2 million European citizens.

The key assumption of this action is that Civil Society Organizations (CSOs) play a crucial role in fostering effective, mutually beneficial action models and conveying clear messages to encourage the adoption of more sustainable practices. **The NOPLANETB perspective**, grounded in long-standing cooperation among its partners, **prioritizes reaching less-engaged citizens and stakeholders** who, for various reasons, do not currently prioritize the action's themes in their lives or communities. The initiatives will aim to demonstrate to this group the importance of combating climate and ecological crises and fostering sustainability in global policies. Engaging this audience presents a significant challenge. The assumption is that these less-engaged citizens are not necessarily "deniers" of climate change but rather individuals who may not yet be aware, interested, or have become disillusioned with the issue.

Similarly, the NOPLANETB recognizes the negative role of “disengaged” institutions. These institutions may fail to see the link between climate crises and social challenges and thus do not see the link to their mandate. This also applies to private sector actors, especially small businesses, which may not recognize the potential benefits of transitional policies for their operations.

A second goal of NOPLANETB is to promote trust in science. While the anthropogenic causes of climate change are supported by robust scientific evidence, this evidence is often confused with arguments of a different nature or presented as complex academic theories, making them difficult to understand and seemingly disconnected from daily life. To build trust in science, **NOPLANETB has developed its own method for designing and implementing climate projects, referred to in this document as the "science-based" approach.** This method aims to promote critical thinking, enhance citizenship, and foster collaboration, with the ultimate goal of demonstrating that sustainable practices and just transition policies benefit everyone.

In summary, the NOPLANETB Action aims to encourage civic engagement amongst all citizens and institutions by providing reliable knowledge to inform debate and policymaking. Science-based solutions, or evidence-based actions, emphasize effective communication of science—not as a top-down flow of information from experts to non-experts, but as a foundation for fostering interactions and collaborations among all stakeholders. This approach is intended to increase understanding of the current climate and ecological challenges and to stimulate broader participation and engagement within society.

Based on these principles, this document has been produced to explain the main action's hypothesis of work, stimulate debate, and facilitate the preparation and implementation of projects that embrace this

[1] The action is implemented by PuntoSud (Lead - Italy), ACTED (France), AMI (Portugal), Fairtrade Polska (Poland), FAMSI (Spain), f i n e p (Germany), Hungarian Baptist Aid (Hungary), Mondo (Estonia).

approach, particularly those which will be submitted in response to the planned NOPLANETB calls for proposals.

For this purpose:

- Section 1 explains the terms **"disengaged" and "science-based".** Given its importance, an explanation on **gender mainstreaming** is also included.
- Section 2 suggests **practical methods for engaging the "disengaged"** and illustrates **how "science" can be incorporated into projects**, particularly **in the context of communication.**
- Section 3 intends to summarise the key elements in a view to propose a practical guideline on **how to design and implement small-scale science-based projects aimed at engaging "disengaged" citizens and institutions**.
- The annexes outline **key areas within which such actions can have a meaningful impact**, namely: knowledge sharing and services, soil, mobility, water waste and waste management, green labour, green cities, consumption patterns and sufficiency, and green working environment.
  Since NOPLANETB **strongly believes in the use of existing resources to enhance CSOs actions**, a brief non-exhaustive **list of references** (guidance documents, research papers, websites, etc.) mapped by NOPLANETB is also presented here and will be constantly updated on the NOPLANETB webpage.

The present document is the result of a working group formed by (in alphabetical order): Ana Moya (FAMSI), Andrzej Żwawa(Fairtrade Poland), Daniele Saibene (Fondazione PuntoSud), Federico Bastia (coordinator, Fonadazione PuntoSud), Hart FORD (ACTED), Mari Jõgiste (mondo), Sabrina Hoffmann(Finep), Sándor Horváth (HBAid), Tânia Barbosa (AMI)

1. THE NOPLANETB PERSPECTIVE

This section is dedicated to explaining the overall NOPLANETB working approach, including its target audience, specific science-based methods, and adopted gender mainstreaming criteria. The guidance is not exclusively intended for organizations wishing to participate in the NOPLANETB initiative. Instead, it is aimed at all organizations—including CSOs, donors, media, and public authorities—currently seeking ways to make projects addressing the climate and ecological crisis more effective and to create a more sustainable and inclusive society.

1.1. The Target

Definition of the disengaged

Disengaged citizens represent a diverse group of individuals who, for various reasons, do not actively participate in or show interest in climate action and related sustainability initiatives. They are not necessarily climate change sceptics or deniers; rather, they might be unaware, uninterested, or preoccupied with other immediate concerns.

The concept of citizenry engagement in climate action can be visualized on a spectrum as shown in Figure 1[2], which reflects in green the range of individuals motivated for and engaged in climate action, in red climate change deniers and rejectionists, and in yellow the disengaged.

Figure 1: Climate engagement spectrum

Beyond the personal perspectives and positions of individual citizens, institutions can also take a position as "disengaged".

A climate **disengaged institution** refers to an organization/entity, whether public, civic or private, that exhibits a lack of awareness, interest, or active involvement in addressing climate change issues. These institutions may not recognize the link between their operations and environmental sustainability, or they may underestimate the significance of integrating climate considerations into their strategies and policies.

This disengagement can stem from various factors, such as perceiving climate action solely as an environmental issue irrelevant to their core mission, fearing economic repercussions, or being influenced by political ideologies that downplay climate concerns. As a result, these institutions often miss opportunities to contribute to and benefit from the transition to a low-carbon economy, thus hindering broader societal efforts to combat climate change. This is the case of local foundations that do not perceive the link between climate crises and social challenges, or of private sector actors (particularly small businesses) that do not consider the potential impact of transitional policies for their business. Moreover, public institutions often face budget constraints and a lack of political pressure, while private companies can be influenced by short-term economic interests and market pressures that do not favour sustainable investments.

[2] The figure is not the result of an accurate analysis. It is presented to suggest a general idea that society may be divided into four groups: 1) Pure Activists (dark-green): a smaller group with limited affiliates (which may play an important role as multipliers/engagers); 2) Sensitive Citizens (light green): a larger group with varying degrees of sensitivity to the issue; 3) Disengaged Citizens (in yellow): a group that, for various reasons, is not particularly sensitive to the issue. This is the primary target of NOPLANETB. 4. Climate change deniers (in red): although not the target, this group plays a significant role in producing misinformation, false information, and fake news and should be considered for their impact.

Overall, engaging disengaged citizens and institutions is vital because their involvement can significantly amplify the impact of climate actions. Disengaged groups, whether they are individuals or institutions, represent a substantial portion of the population and their inclusion can help create a more comprehensive and robust approach to sustainability. Their motivations and reasons for lack of engagement can stem from many different sources (see definition and examples of disengaged sub-groups in section 2.1)

The spectrum of engagement, finally, is not static; individuals (and institutions) can shift from a position of disengagement to one of greater involvement due to personal experiences, changes in perception, or targeted interventions.

Importance of Youth and Women

Focusing on youth and women while targeting the disengaged is critical due to their unique potential to drive innovation and inspire broader community engagement. Young people possess high levels of motivation and creativity, which can catalyse significant positive changes, enabling the development and dissemination of best practices that resonate more effectively with diverse groups. Youth are particularly affected by climate change as they will face its long-term consequences, making them, in general, more invested in finding sustainable solutions[3]. Empowering young women specifically addresses gender disparities, ensuring that the voices and ideas of a critical yet often underrepresented demographic are included in the dialogue and action on climate issues.

Moreover, focusing on youth and women addresses various socio-economic and political barriers that disengaged citizens face. These groups often feel the immediate and long-term impacts of climate policies more acutely and are more likely to advocate for equitable solutions that consider these impacts. Youth engagement can counteract the deep worry, frustration, and hopelessness felt by new generations regarding climate change, fostering positive coping strategies through meaningful adult actions and opportunities for involvement. Women, on the other hand, often bring a more inclusive perspective to climate action, emphasizing community and family welfare[4]. By integrating these groups into the core of climate initiatives, the Action aims to build a more inclusive and comprehensive approach, enhancing the overall effectiveness and acceptance of climate policies and actions among the broader population.

1.2. The Proposed Science-Based Approach

Why adopting a science-based approach?

According to Climate Outreach research[5], countries need citizen involvement in policymaking to achieve climate goals. Without public engagement, governments struggle to take decisive action on climate issues. Effective communication and active public participation are crucial for meaningful progress. **In other words, citizens' consent and participation are essential for sustainable societal change**.

However, major social shifts, such as behavioural changes toward more sustainable consumption patterns, are not easy to plan and may emerge differently across various places and times. Achieving these social changes requires the effective engagement of the majority of citizens, thus communication must be open and inclusive enough to reach all groups within a community, thereby fostering a sense of trust. Such inclusive and trust-based communication is a critical aspect of the response to climate change; however it has unfortunately often been overlooked.

[3] Young people, for instance, through introducing innovative approaches and ability to influence social networks, can become agents of change within their communities. Digital technologies and new communication platforms can be leveraged to engage the disengaged, especially disengaged youth.
[4] As is well known, women, often in leadership roles within the family and the community, can facilitate the widespread adoption of sustainable practices on a large scale.
[5] Climate Outreach (https://climateoutreach.org/) is an UK-based organisation with a team of social science experts at the forefront of generating climate change public engagement understanding, working with leading practitioners and strategists to advise and support key organisations and initiatives with communication insights, tools, training and advice. It leverages impact through partnership and thought leadership rather than delivery.

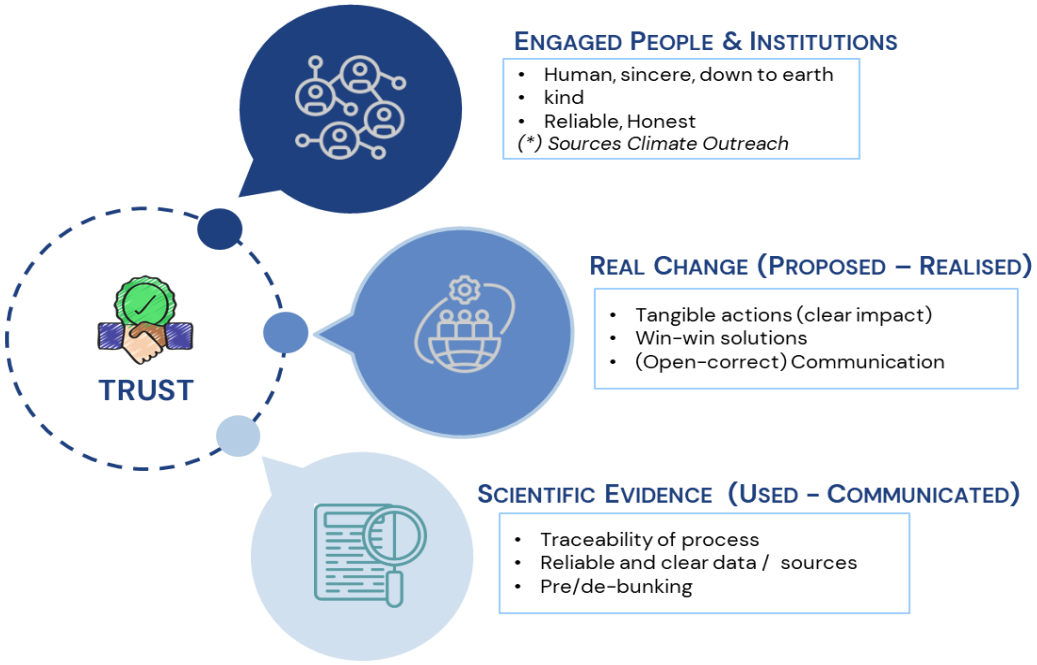
Building trust is consequently essential, whether it involves demonstrating proven results of climate change research or highlighting the potential to make a difference. Without trust, efforts to engage and communicate may fall flat, as individuals and institutions are less likely to invest time and resources in initiatives, they do not find credible. Therefore, establishing and maintaining trust should be a primary focus in strategies aimed at re-engaging these key groups.

Within this framework, **adopting a science-based approach is crucial because it provides citizens and institutions with reliable knowledge and tools**, fostering a deeper understanding, preventing the spread of false information, and empowering them to take informed actions.

This goes beyond transparent communication; it necessitates putting into practice and testing ideas, regular updates on progress and challenges, facilitating opportunities for public feedback, and visible, community-driven outcomes. Such an approach helps translate abstract climate challenges into tangible, actionable insights.

In synthesis, this vision combines the idea that the actions of trusted individuals and institutions (e.g. CSOs), effective practical action (e.g. NOPLANETB financed projects) **with a strong focus on scientific evidence** can generate greater trust and collaboration, including amongst those who are currently disengaged on the issue (see figure).

Figure 2: Science-based approach key



The term 'scientific evidence' (third square on the right) is intended to encourage the **study and "use" of research-proven results** to promote a broader understanding and foster *critical thinking* on climate/ecological crisis and a just transition. Shifting attitudes or mindsets enables communities to be better prepared to discuss and promote sustainable solutions which can enhance quality of life. This can be achieved through 1) promoting knowledge[6] on the topic, 2) promoting the adoption of 'scientific methods' for project design and development, and 3) investing in accurate and accessible communication.

[6] It shall also to be pointed out a broad understanding of knowledge that also includes indigenous knowledge (systems), which did not necessarily originate at universities or scientific institutes, but which, for example, emerged empirically, locally, unique to a given society and can therefore also play an important role in different contexts.

Challenges

However, integrating critical thinking, scientific literacy, and transparent communication is not easy or automatic and must overcome various obstacles:

- Low scientific education in general (e.g. basic knowledge and low understanding of scientific methods) which hinder the ability to critically evaluate information and adopt an evidence-based approach. For instance, several surveys affirm that the scientific consensus on anthropogenic climate change range 97% and more[7], while the perceptions of citizens regarding this consensus is much lower.
- Misinformation (information disorder and pseudoscience) causes a number of negative impacts. It reduces public support for mitigation policies, undermines efforts to communicate accurate information, and creates misconceptions about the prevalence of contrarian views, leading to self-censorship. While misinformation generally reduces climate literacy, its effects vary across the political spectrum, often exacerbating divisions.
- Prejudices and personal beliefs, which promote biases or cultural convictions, can make people less inclined to accept scientific conclusions that contradict their opinions.
- Political, economic, or social pressure which can influence scientific research, funding allocation, and communication of results, compromising the neutrality and objectivity of science.
- Communication of scientific results can also be an obstacle. Society consists of diverse people with different interests, information sources, and backgrounds, but communication is not always tailored to these varied groups.
- Information overload can occur given the vast amount of climate information available online, making it difficult to focus on essential data and make informed decisions. This also complicates the task of distinguishing reliable sources from pseudoscience and misinformation.

How to adopt a scientific approach

The overall idea is to mitigate the obstacles presented above, preparing the ground for a better-informed society, particularly through the implementation of NOPLANETB initiatives. This includes a broad range of strategies which form the science-based approach.

- Firstly, to engage diverse audiences effectively, communication strategies should be adaptable and inclusive. For example, using storytelling can connect climate science to personal experiences, while visual aids like infographics can make complex data more accessible. Interactive tools, such as online simulators or community workshops, can also facilitate a deeper engagement (see section 2.2. for further suggestions).

- Telling the facts, through using fact-checking techniques, investing time in collecting sources (stories, scientific data and empirical evidence), understanding them and considering how to make them accessible to a wider public.
- Promoting broad understanding, without overwhelming the public with data and theories. Popular science involves using simple and accessible language to explain fundamental scientific concepts about climate change, helping the public grasp the importance of the issue and its implications.
- Combating misinformation by elaborating content and messages that activate critical thinking. A key concept in this regard is "pre-bunking". This method anticipates objections and inoculates against misinformation strategies by avoiding the "continued influence effect," clearly explaining what is known, what is unknown, and the provisional nature of scientific results.

[7] See several studies on https://science.nasa.gov/climate-change/scientific-consensus/

Considering the myth that individual actions are insignificant in combating climate change, science-based communication can counter this by showcasing data on the collective impact of individual behaviours, such as how widespread adoption of energy-saving practices can significantly reduce carbon emissions. Initiatives like fact-checking websites and educational campaigns have successfully debunked similar myths, demonstrating the power of clear, evidence-based information.

- Promoting critical thinking, curiosity, and examining the roots of information sources to determine which can truly be considered authoritative is key. In this regard, it's also important to recognize that expertise in a given discipline requires proven, specific experience. Being a scientist in one field (e.g. chemists) does not grant the authority to draw significant conclusions in areas where one lacks specialized expertise (e.g. climatologists).
  Fostering scientific literacy and critical thinking can be achieved through a variety of educational programs and resources. Partnerships with schools to integrate climate science into the curriculum, online courses that teach the basics of scientific inquiry, and public lectures or webinars by experts can all enhance understanding and critical analysis of climate information.
- Finally, fostering the concept of a *Just Transition* acknowledging that mitigation and adaptation[8] measures may also have negative social impacts. This requires constant attention to assess and address injustices especially when actions aim to engage citizens and institutions not particularly sensitive to climate and ecological themes.

  A Just Transition approach can be seen in initiatives like the European Union's Just Transition Mechanism, which provides financial support and training for workers transitioning from carbon-intensive industries to sustainable employment sectors. This ensures that climate policies do not disproportionately impact vulnerable communities and support a fair distribution of the benefits of a green economy.

Based on these principles**, NOPLANETB encourages CSOs to invest in two key aspects to enhance the effectiveness of their actions:**

A. produce evidence demonstrating the importance of the proposed action and the relevance of the identified problem for the community.
B. Elaborate on how the action will positively impact the community.

It is important to clarify that the term "community" is intended here in its broader sense: it can refer to residents of a specific area, a virtual community, a particular segment of the population, etc. Any proposed project shall therefore explain what science says about the addressed problem(s) and how the anticipated impact is crucial for the target community (see picture below).

Adopting a science-based approach is not just about utilizing evidence; it's about empowering communities through transparent, inclusive, and effective communication.

By building trust, fostering critical thinking, and addressing diverse needs, we can drive meaningful action on climate change. NOPLANETB calls on all stakeholders to embrace this approach and contribute to a sustainable and equitable future.

It is important to consider how answer these two key questions clearly and effectively, thus capable of garnering a broad consensus (see table below).

[8] Mitigation measures are considered actions taken to reduce or prevent the emission of greenhouse gases, with the goal of limiting the magnitude of future climate change impacts (i.e. avoid what we cannot manage). Adaptation measures are actions aiming at adjusting social, economic, and environmental practices to minimize the negative impacts of climate change that are already occurring or expected to occur (i.e. manage what we cannot avoid).

Figure 3: Key investigation questions

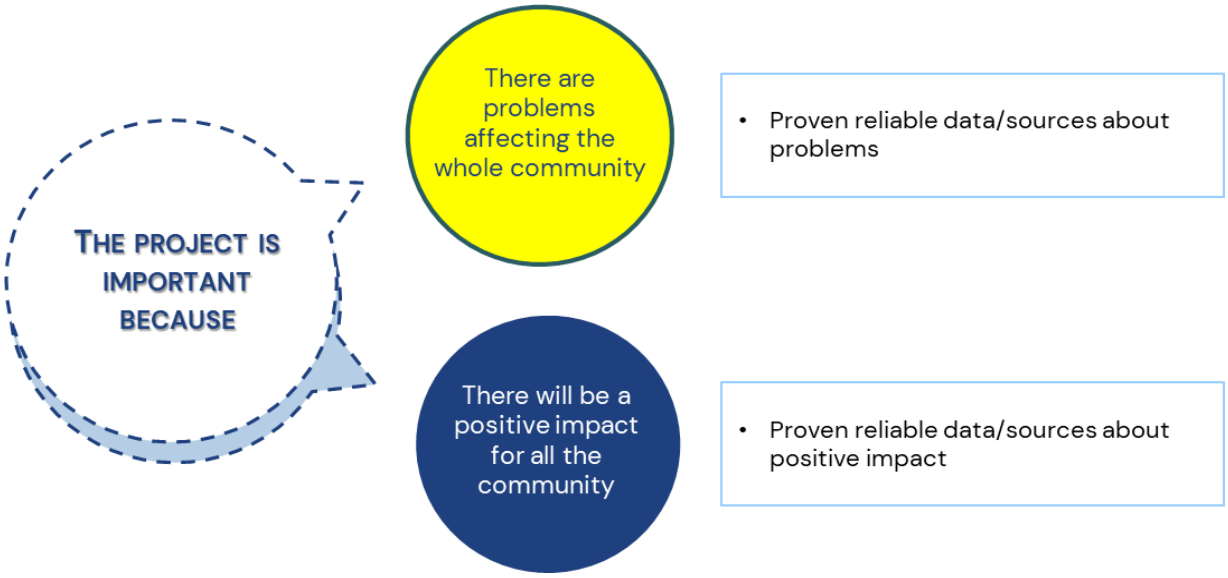


Table 1: Explanation of key investigation questions

Key question	Suggestions
Why is the identified problem relevant (including what sources are available to prove this)?	With for profit actors, simply generating profit is very often considered (whether right or not) an adequate demonstration of effectiveness. However, in fields where one manages other people's resources, such as in the non-for-profit sector, it is crucial to provide concrete evidence about the importance (relevance) of the proposed intervention. Therefore, non-for-profit actions should be centred around "problems (or gaps) faced by the community" and, especially for divisive topics such as climate change issues, should be backed up by clear, reliable sources of information (e.g. contextualised data, authoritative sources, credible key informants), which evidence the gaps that the project aims to address.
Why are the results tangible (and how and for whom)?	Bridging the gap between theoretical knowledge and practical application is crucial. Merely possessing theoretical understanding isn't sufficient; it must also be effectively applied. Rather than being solely academic, practical application ensures the action's tangible benefits (both quantitative and qualitative) are outlined. To demonstrate why the action improves community well-being and quality of life, it is essential to identify and utilize reliable sources of information effectively. One example of a successful science-based initiative is the 'City of Stockholm's Climate Action Plan[9]'. By integrating comprehensive data analysis with public consultations, the city has effectively reduced carbon emissions while gaining widespread public support. This approach illustrates how clear, evidence-based strategies combined with active community engagement can lead to significant environmental and social benefits

Along with explaining why the proposed action is important and what will be achieved for the target audience, it is also crucial to consider which communication strategies will be used. This will be further elaborated in section 2.2.

[9] https://miljobarometern.stockholm.se/content/docs/tema/klimat/Climate-Action-Plan-2020-2023.pdf

"Science-based" approach and disengaged audience

As previously noted, the "science-based" approach recommends a strong focus and investment in the preparation phase in order to reach a wider audience. The **target audience,** especially those who are disengaged, **should always be at the centre of the analysis.** Their needs should guide both the research for evidence and the communication strategies, as illustrated in the following picture.

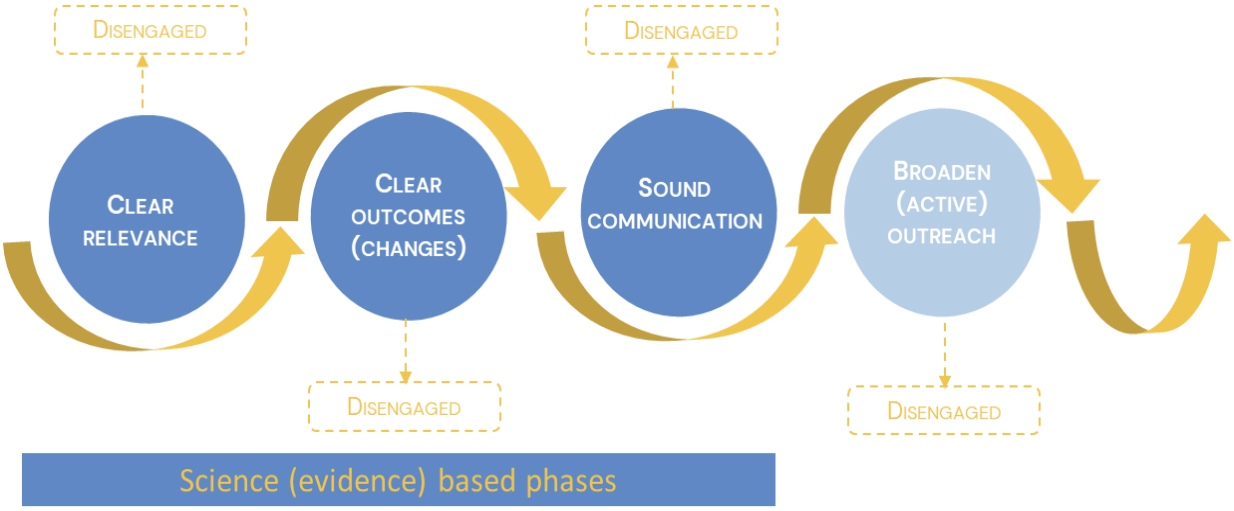


Figure 4: Focus on disengaged audience

The following table outlines "do's" and "don'ts" for different phases to guide the planning and implementation of a science-based action targeting disengaged audiences.

table 2: Tips to enhance effective science-based project planning and management

Phases	Do	Don't
Clear Relevance	Outlining preliminary focus Collect reliable scientific sources on the primary themes that provide adequate scientific understanding for the proposed project.	Conduct extraneous analysis: research shall stop when enough reliable information/data is available to explain/motivate the proposed project/objectives.
	Contextual analysis (why the action is important) Identify the problem clearly and connect it with available explanations. Include external references that prove the relevance of the topic(s), the consequences and the negative impacts.	Select an issue/problem which is too broad, too far-removed, or not linked to the context in which the action is going to be implemented. Include too many details or too much data which will not be easily digested by a wider audience. Include highly divisive data/information without allowing for explanation of the varied perspectives on the information.
Clear Outcome (Changes)	Development of action objectives Define realistic outcomes with a proven benefit, supported by evidence from literature, scientists and other reliable demonstrations. Outline accurately which misinformation/false information are circulating related to this theme.	Be too ambitious. The key result in this phase is to be ready to demonstrate with scientific evidence the reasons why these objectives should be supported by citizens/institutions.

Phases	Do	Don't
Sound Communication	Implementation (and conclusion) of actions Ensure constant communication flow during roll out of the action - based on scientific data/information/popular science dissemination, aimed at informing the action's relevance and objectives to induce personal behaviour change and support for extensive government actions. Where feasible and relevant, actions should also invest in ad hoc popular science / debunking activities to foster critical thinking regarding the action's themes.	Underestimate the importance of correct and constant communication. Overload with data, and/or use data that are not contextualised and/or incorrect. Propose a communication strategy that may divide people, produce confusion, disinformation or even decrease engagement.

1.3. Gender Mainstreaming

Climate change affects men and women differently due to traditional roles, societal expectations, and livelihoods, with women, especially in the Global South, subject to additional vulnerabilities. Women typically have lower incomes, less access to credit and decision-making authority, and limited control over resources, increasing their susceptibility to climate impacts.

Globally, men and women show a similar level of concern about climate change, however gendered differences can be seen including in wealthier nations. For instance, in 7 of 11 developed countries surveyed, women are more likely than men to see climate change as a serious problem, worry about personal harm, and believe major lifestyle changes are necessary. In Germany, 82% of women vs. 69% of men are concerned about personal harm from climate change. Similar double-digit gaps exist in the U.S., Sweden, UK, South Korea, Singapore, Taiwan, Australia, and the Netherlands.

Furthermore, climate change disproportionately impacts women especially in low-income countries. Women's responsibilities in food production, water, and firewood collection, caregiving, and their higher vulnerability to undernutrition and limited medical access are all exacerbated by climate change. This underscores the need to integrate gender perspectives in climate change and development efforts to empower women and enhance resilience. Considering gender in climate projects can enhance their effectiveness; for instance, projects in South Africa and Honduras have successfully involved women in the management of early warning systems in case of natural disasters. In Europe **women, especially in Mediterranean regions, bear a disproportionate burden of severe impacts of climate change**, which are increasingly evident, where warming trends and Mediterranean Sea temperatures amplify each other's effects. They are more likely to reside in flood-prone areas and non-air-conditioned homes during heatwaves, exacerbating health risks like premature births and mental health issues[10].

Climate change has also heightened the prevalence of vector-borne diseases, affecting maternal and neonatal health. Rural women, crucial for local economies reliant on natural resources, face unequal impacts from climate hazards due to disparities in resource access and societal roles. Furthermore, women's roles in education and caregiving underscore the need for enhanced climate education and empowerment initiatives to prepare future generations for climate action and mitigate gender disparities in technical and scientific fields.

Despite being especially vulnerable in the climate crisis, **women are uniquely positioned to act as powerful agents of change.** They generally have smaller carbon footprints and a greater interest in protecting the environment, and many take on a critical role as activists, exemplified by Greta Thunberg, Mary Robinson and others. Female leaders, from grassroots activists to corporate executives, significantly improve environmental impact and are more inclined to enforce corporate social

[10] See end section of the chapters for references.

responsibility (CSR) goals. Studies show that organisations with more female executives perform better in terms of environmental impact and CSR. Women's leadership, proven more effective in crises like the Covid-19 pandemic, also extends to climate crisis management. Including women in decision-making leads to better environmental governance, with increased female representation correlating with lower carbon emissions. Research has also found that higher female representation in government drives more stringent climate policies and results in lower CO2 emissions[11].

Female environmental leaders face gender-specific threats and violent pushbacks, including verbal abuse, intimidation, sexist attacks, threats, media infantilization, and accusations of mental instability aimed at silencing their activism. Despite their critical role in climate movements, women are underrepresented in decision-making spaces, with men holding 67% of climate-related roles. Another analysis shows women's participation in global climate negotiations to be below 30%. Moreover, female-led environmental groups receive just 3% of philanthropic funding, struggling to access large-scale climate finance. The 2022 SDG Gender Index reveals insufficient progress in gender equality, especially in climate action. Increasing women's leadership and decision-making in climate policies is crucial for effective climate solutions and sustainable development, necessitating renewed focus and funding at the international level[12].

Certainly, **stereotypes (especially gender stereotypes) exist in various human spheres and operate subconsciously**. For this reason, it is crucial to remain vigilant and maintain a consistent effort aimed at recognizing and mitigating these stereotypes. This is particularly important in the context of climate action[13].

It is clear that climate change disproportionately affects certain groups, such as poor communities or communities of colour. An intersectional approach highlights that individuals with multiple vulnerable identities, like poor women of color, face even greater impacts. Integrating an intersectional approach and addressing gender-specific barriers in climate actions are essential steps to creating inclusive and effective solutions for climate change, fostering sustainable development and benefitting the widest range of people.

Principles to follow:

- Inclusive Participation: Ensure equal participation of women and men in project activities and decision-making processes. Monitor participation rates and provide opportunities for diverse voices to be heard. *Suggestions:* identify a suitable balance of women and men participating in project activities and decision-making processes and describe how to achieve this.
- Gender-Responsive Language and Messaging: Use non-sexist and non-discriminatory language and imagery in all project communications. Avoid reinforcing gender stereotypes and promote inclusive messages.
  Suggestions: Assess project communications, including written materials, presentations, and visuals, for the use of non-sexist and inclusive language and imagery.
- Uphold Gender Equality Standards: Promote standards of gender equality within project activities by combating gender stereotypes and fostering equal participation and leadership opportunities.

[11] Ibid.
[12] See also https://unfoundation.org/blog/post/five-facts-about-gender-equality-and-climate-change/ for further information on the subject.
[13] For instance, people often avoid environmentally friendly behaviours due to inertia, fatalism, and difficulty in understanding long-term consequences, but new research highlights a surprising disincentive. Studies by psychologist Janet Swim and colleagues found that men performing feminine-associated green tasks were perceived as less certainly heterosexual. This effect, confirmed in follow-up studies, led to real-world consequences where men avoided women who engaged in masculine green behaviours. The researchers suggest that activists and policymakers promoting pro-environmental behaviours should consider the pressures to conform to gender roles and stereotypes as potential obstacles. Organizations could attract more participants by offering various activities and allowing volunteers to choose tasks that they feel comfortable with.

Suggestions: Ensure adequate reflection before and during the project implementation on the incorporation of specific gender equality criteria and how the project addresses gender-related issues. Ensure that these standards are well known and agreed by all involved actors (internal staff, volunteers, partners' staff, etc.).

- Incentives for Women's Leadership: Implement specific requirements to incentivize women's leadership within CSOs and project activities.
  Suggestions: Set targets for women's representation in leadership positions and provide support for aspiring female leaders.
- Negate harmful gender stereotypes: Studies have shown that men might be disinclined to take environmentally friendly action for fear of being perceived as effeminate. The action must address this issue and propose a means of reinforcing a positive image of environmental activism for men.
  Suggestions: Assess project communications, including written materials, presentations, and visuals, for the use of inclusive language and imagery which counteracts current stereotypes.
- Collaborate with other actors in the field of gender equality to enhance the effectiveness of CSO projects and ensure they are sensitive to gender issues and can address them appropriately.
  Suggestions: When feasible, consult with gender specialists or organisations with expertise in gender equality.

Further readings

For a more in-depth study of the subject, NOPLANETB has identified the following sources:

- https://unfoundation.org/blog/post/five-facts-about-gender-equality-and-climate-change/
- https://www.unepfi.org/themes/climate-change/gender-climate-and-finance-how-financing-female-led-businesses-can-lead-the-way-to-a-net-zero-future-for-people-and-the-planet/
- https://europeangreens.eu/resolutions/womensrights-gender-and-climate-change-europe/
- https://www.pewresearch.org/short-reads/2015/12/02/women-more-than-men-say-climate-change-will-harm-them-personally/
- https://www.unepfi.org/themes/climate-change/gender-climate-and-finance-how-financial-institutions-can-support-a-gender-just-transition/
- https://ideas.repec.org/a/eee/poleco/v56y2019icp151-164.html

2. PROPOSED WORKING METHODS

This section outlines how climate projects can more effectively reach disengaged audiences and how using "science" can enhance outreach. While the section focuses on designing initiatives for Civil Society Organizations (CSOs), as for section 1., the practices and recommendations presented are intended to encourage broader reflection on climate action overall.

2.1 The Challenge: How To Reach A Disengaged Audience

Ways to engage disengaged citizens and institutions

Step A: Understanding disengagement

As introduced in chapter 1, the term "disengaged" does not refer to climate "deniers", but rather a broader segment of society with a resolved stance. To effectively place disengaged citizens and institutions at the centre of climate actions, it is thus essential to start by defining the specific target groups the action aims to involve and deeply understanding their specific concerns, motivations, and contexts in which they live/operate. Disengaged citizens can be classified into several sub-groups based on their specific reasons for disengagement. The following non-exhaustive list is presented to stimulate a reflection on the issue.

- Unaware Individuals: Those not fully informed about the threats and potentialities of climate change. They lack basic knowledge of climate concerns and the implications of policy measures. For example, a worker who does not have the time or inclination to follow environmental news or educational resources about climate change.
- Economically Concerned: Citizens worried that climate policies will negatively impact their personal finances. They fear job losses in carbon-intensive industries or increased energy costs. For example, a worker in the mobility sector who is concerned about the rising fuel prices and fears that transitioning to electric vehicles will be too costly, potentially putting their livelihood at risk.
- Lifestyle Concerned: Individuals afraid that climate policies will disrupt their lifestyle, such as reduced travel options or altered dietary choices.
- Culturally Conflicted: Those who perceive climate actions as conflicting with their traditional values. For example, a shepherd who opposes reforestation efforts or grazing restrictions in conservation areas, viewing these measures as threats to their cultural heritage and tradition of seasonal movement of livestock between pastures.
- Politically Influenced: Those heavily influenced by political ideology, particularly those with conservative views who see climate action as aligned with progressive policies and fear a loss of freedom. For example, a conservative voter who views climate change policies threaten personal freedoms and are sceptical of any climate action proposed by progressive political parties.
- Distrustful of Government: Individuals who generally distrust government institutions, leading to scepticism about the effectiveness and sincerity of climate policies. For example, a small business owner who distrusts government initiatives, fearing that climate policies are just another way for the government to impose regulations and taxes without delivering real benefits.
- Short-term Focused: People who prioritize short-term gains over long-term benefits, hesitant to support policies that require immediate sacrifices for future rewards. For example, a retiree who is more concerned with enjoying their remaining years without the hassle of changing long-standing habits or investing in energy-efficient home improvements that will only pay off in the distant future.

- Perceived Lack of Impact: Individuals who believe their personal actions or support for climate policies will not make a meaningful difference in addressing global climate change. For example, a busy single parent who feels overwhelmed with daily responsibilities and believes that their small-scale efforts, like reducing plastic use, are insignificant in the larger scheme of global climate issues.
- Individuals without access to engagement opportunities and global citizenship education: Some individuals may live in areas with little or no access to organizations offering engagement opportunities or global citizenship education (GCE) structures. For example, people living in rural areas may find it more challenging to access GCE engagement or organizations compared to those in urban settings.
- Disconnected from Nature: Individuals who are simply not interested in environmental issues, often due to a lack of (or perceived lack of) connection with nature. For example, an urban resident who spends most of their time indoors and feels no direct connection to natural environments.

These categories are not mutually exclusive, and individuals may belong to multiple sub-groups, with different factors playing varying roles depending on age, gender, geographical location, and economic status.

A very ample group of disengaged citizens, finally, include those who, for various reasons, have **limited ability to respond**.

Table 3: Examples of socially vulnerable groups more sensitive to climate and environmental impacts

Groups
→ Very young children
→ Older people
→ People in poor health
→ People with poor mobility and access
→ People with poor housing / tenancy status
→ People living in areas lacking green infrastructure
→ Socially isolated people
→ People in need / deprivation

Step B: Target group identification

Targeting is particularly relevant when aiming to increase outreach on climate topics. This may require significant investment in the design phase to develop feasible activities that effectively engage the target group. A participatory approach from the outset of designing civil society organizations' actions can be highly beneficial.

Engaging disengaged groups begins with comprehensive research and community consultations to identify the unique barriers and incentives for participation. By actively involving these stakeholders in the planning process, CSOs can ensure that interventions are tailored to address the specific needs, beliefs, concerns, and perceptions of disengaged citizens and institutions.

To this effect, the following methods and tips are proposed.

- Initial engagement and Research. The first step in this process is conducting thorough community assessments and stakeholder mapping. This involves identifying disengaged citizens and institutions, understanding their reasons for disengagement, and recognizing their daily challenges and priorities. For instance, an analysis on the documentation available can be used to gather qualitative data on the perceptions and attitudes of these groups towards climate action and sustainability initiatives, or key informant interviews can be conducted with community or institution representatives. These insights can then inform the design of actions that are not only relevant but also resonate with the target audience's values and concerns.
- Co-Creation and Collaborative implementation. Once the initial research is complete, the next step is to engage disengaged citizens and institutions in opportunities to co-program the scope of the action once it is financed, through mechanisms such as co-creation workshops. Such initiatives will provide a platform for participants to voice their ideas, preferences, and concerns, ensuring that the planned activities are both meaningful and practical. For example, if economically concerned individuals (e.g. shops owners conflicting with restoring urban space as it would limit parking) are a significant subgroup, workshops might explore ways to implement activities that demonstrate clear economic benefits, such as energy-saving initiatives that reduce utility bills or local renewable energy projects that create jobs. Similarly, for culturally conflicted groups, activities modifications can be introduced to respect and integrate traditional practices, demonstrating how sustainability can enhance rather than undermine their cultural heritage (e.g. outlining the benefits of developing sustainable tourism in remote areas).
  Within this framework, the involvement of leaders or gatekeepers (actors who can exercise authority) can make a significant difference, for example, by forming alliances that activate an enabling and contributive pathway.

Excursus on Climate Anxiety

An important aspect to consider is "climate anxiety"—the distress caused by the threat of climate change—and the need to foster a reimagining of a livable and sustainable future. Discourse shapes our understanding of environmental protection and climate change, so it is crucial to carefully design strategies that consider their impacts on individuals and institutions. Campaigns should address climate anxiety and fatigue by balancing the presentation of current realities with a vision of a sustainable future. The negative effects of climate change can be managed in the long term, and efforts should aim to cultivate a mindset geared toward positive action. The goal is to create and empower a new generation of citizens who are capable, motivated, and prepared to engage in public discourse on climate change and environmental protection while working toward a sustainable future.

Climate anxiety can lead to paralysis and inaction; therefore, it is vital to pair discussions of climate realities with empowering narratives about actionable solutions. Techniques such as storytelling that highlights community resilience, sharing case studies of environmental recovery, and promoting personal and collective agency can help mitigate climate anxiety. Initiatives like community gardens or local renewable energy projects can provide tangible examples of positive contributions, fostering hope and purpose.

Step C: Engagement strategies for the disengaged

The goal is to capture attention by highlighting at least one aspect of climate change and environmental protection, with a focus on building trust and raising awareness. It is important to find new ways to engage and inform, particularly about actions, policies, or changes that address broader concerns, such as costs.

To involve disengaged citizens and institutions, projects should offer direct benefits and align with their interests. Communications should emphasize the specific advantages a particular action or policy could bring, particularly in terms of fairness and addressing concerns about the green transition. For example, community clean-up events paired with workshops on waste reduction can appeal to those interested

in local aesthetics. Energy efficiency programs that lower utility bills can engage economically motivated groups, while urban gardening initiatives can attract those focused on local food security and green spaces.

Language is also key in engaging different groups. Consider which terms and concepts the target audience finds relevant or motivating versus those that may be seen as irrelevant, politicized, or unengaging. For example, some may find calls to address "climate risk" more compelling than appeals for "environmental protection." Testing and refining the language to better engage the target audience can be part of the initial research and engagement process.

Additionally, start with a narrow, local perspective and gradually expand the discussion to regional and global levels. Begin with issues directly impacting daily life, such as air quality or water conservation, to create a relatable entry point into broader climate discussions. For example, in urban areas with high pollution, initiatives to improve air quality can lead to conversations about reducing vehicle emissions and promoting public transport. In coastal communities, addressing beach erosion concerns can segue into discussions about rising sea levels and global climate policies. By connecting local impacts to global issues, understanding and support for broader climate action can be built over time.

Table 4: Examples of project ideas tailored to different disengaged groups and their unique priorities

Target Group	Project Idea	Benefits
Economically Concerned - citizens worried that climate policies will negatively impact their personal finances	Energy-saving workshops and subsidies	Lower utility bills, job creation
	Green business certification programs	Attracts eco-conscious customers
Culturally Conflicted - those who perceive climate actions as conflicting with their traditional values	Sustainable heritage tourism	Preserves culture, promotes local economy
Disconnected from Nature - individuals who are simply not interested in environmental issues, often due to a lack of (or perceived lack of) connection with nature.	Eco-friendly tech innovation competitions	Engages interest, fosters innovation
Distrustful of Government - individuals who generally distrust government institutions, leading to scepticism about the effectiveness and sincerity of climate policies.	Community-based renewable energy projects	Energy independence, local empowerment

Examples of engagement

CSOs can employ varied and creative strategies to "engage the disengaged." The following list of examples is not normative nor exhaustive, but aims to outline different entry points for the engagement trajectory:

- Behavioural Psychology - leading through concrete examples. Engaging disengaged groups in climate action can be effectively achieved by leading through example and providing concrete solutions. Consider a scenario where a person tries to promote recycling, energy conservation or other micro environmental measures at home, in school, or the workplace, only to be met with scepticism about the impact of such minor actions. Despite this initial resistance, consistently demonstrating these behaviours can gradually shift perceptions and encourage others to participate. This phenomenon is supported by studies indicating that small, observable actions can catalyse broader behavioural changes over time. Research in social psychology shows that people are more likely to adopt behaviours they see others performing, especially if those individuals are perceived as similar or credible. By consistently demonstrating sustainable practices, such as recycling or reducing plastic use, one can gradually influence others to follow

suit[14]. Even minor actions can have significant impacts when adopted at scale, creating a ripple effect of positive environmental change.

-

Table 5: Strategies for "teaching" through examples

Tips
→ Start with providing more concrete and simple examples, then move on to more abstract or complex examples once a foundational understanding is established.
→ Use a wide array of examples with varying attributes.
→ Prompt individuals and institutions to explore the connections and differences among the examples.
→ Provide opportunities for individuals and institutions to generate their own examples of a concept, including from personal experience.

- Community groups (e.g., community-based organizations, neighbourhood associations, faith-based communities) can easily mobilize many citizens, making them an effective entry point for reaching a broad audience, including the disengaged. Additionally, many religious teachings emphasize the responsibility of the current generation to preserve the environment for future generations. For this reason, faith-based communities, with their significant influence, could play a crucial role in shaping sustainable and inclusive worldviews aimed at environmental protection.
- Collective actions to promote sustainable consumption patterns and sufficiency[15]. Global resource consumption has been rising steadily, with humanity's demand now surpassing Earth's regenerative capacity. This unsustainable consumption has led to environmental degradation, biodiversity loss, and climate change.
  The concept of "sufficiency" has gained prominence in sustainable consumption research. Low-income groups, due to limited economic resources, naturally consume fewer materials than high-income groups. Targeting these specific groups for collective action can effectively reduce consumption footprints. The Paris Agreement calls for absolute reductions in consumption levels, necessitating a shift towards sufficiency-oriented practices.

Table 6: Consumption patterns and sufficiency (e.g. in food, cosmetics, textiles, energy)

Potential target topics	Potential interventions
→ Behavioural change	Types of projects: • Public social events • Making existing publications and research more accessible, establishing an information hub • Producing literature, research • Production of awareness-raising material or products, education material • Media events Methods: • Multiply result or interconnected action • Inclusion of minority/marginalized/ vulnerable group/most exposed, including considering gender-based exclusion • Increase collaboration • Focus on critical issue
→ Policy change	
→ Structural change	
→ Change in supply chain or life cycle of a product	
→ Change in customer and consumer relations	
→ Change in environmental agencies or interest groups	
→ Change in government or municipal services	
→ Change in academia and media	

[14] Given that its usefulness depends on the structure of the waste economy in a given place at a given time.
[15] For this important sector of intervention see also annexes.

- Individual-level change: Our collective footprint, from energy use to material consumption, is significant. However, individuals can still make a meaningful impact. Promoting personal changes can positively influence those around us, highlighting benefits such as improved health and cost reductions. From an economic perspective, one effective strategy is to be mindful of purchasing habits. By being intentional with our spending, we can collectively reduce demand for resource-intensive goods and services. Additionally, sustainable production practices—such as using renewable materials, minimizing waste, and adopting circular economy and Fairtrade principles—are essential for a sustainable future.
  The following table outlines key areas where individual changes can positively affect those around us.

Table 7: Potential impact of individual change

Consumption reduction areas	Options[16]
Energy – electricity	House and water heating, cooking, lighting, space cooling
Energy- heating	Building isolation, adjusting heating and cooling habits
Water waste	Bathing, cleaning, washing, maintenance of water taps
Food	Shopping, packing, reduce use of plastic, storing, consuming, reducing meat consumption, shop, eat and drink locally, seasonally and ethically
Fuel	alternative options, be mindful of transportation emissions - use public transportation, carpool, walk, or bike to places when possible, reduce flying
Clothing	maintenance of dress, avoid fast fashion, shop second hand, shop ethical and sustainable items, repair them instead of throwing out
Waste and recycling	Sorting and recycling, re-use of organic waste, acquiring repair skills
Consciousness – awareness	Research and buy from companies that have ethical and sustainable production practices, calculate your ecological footprint to understand your resource consumption impact, volunteer for a sustainability-focused initiative

- Focus on "systems and services" with which the disengaged interact . To engage individuals who are not typically sensitive to climate issues, CSOs can organize activities in venues and settings where a broad swath of society is present. For example, hosting informational sessions or interactive exhibits in large drugstores in suburban or peripheral areas as well as public transport hubs can reach a diverse audience during their routine shopping trips. Additionally, arranging meetings and workshops with entrepreneurs can foster a sense of responsibility and innovation towards sustainable practices in their businesses. Moreover, collaborating with large enterprises to conduct seminars and training sessions aimed at sensitizing both workers and decision-making staff can create a ripple effect, encouraging more environmentally conscious practices within the organization.
  Other more complex interventions may also be included such as:
  - Educational Partnerships: Collaborate with schools and colleges to integrate climate and development education into extracurricular activities.

[16] When addressing these options, it is suggested to consider the 6R philosophy (Reduce, Reuse, Recycle, Refuse, Rethink, and Repair, promoted by Practical Action - https://practicalaction.org/) which puts the consumer at the forefront of transformation. Although changes in legislation or company strategies are fundamental, it is important to highlight the consumers' power as a force for change, encouraging individual action and avoiding the assumption that individual has minimal potential for impact. The 6 "Rs" guide individual actions to 1) Reduce consumption; 2) Reuse and Repurpose items; 3) Recycle materials; 4) Refuse unnecessary purchases; 5) Rethink needs before buying and 6) Repairing items instead of replacing them. In other words, it boosts the idea that by changing the way we buy and use, we will change the way we sell.

- Health and Wellness Programs: Incorporate climate education and responsible lifestyle into health and wellness initiatives.
- Local Government Training: Conduct workshops and training sessions about sustainability for local government officials and community leaders.
- Business Engagement: Engage local businesses to promote sustainability through incentive programs, sustainable product offerings (for example, through ecological and/or Fairtrade certifications, emphasizing local-seasonal offerings), and by encouraging them to share climate-related information with their customers.

2.2 Anchoring Communication To Science

The nexus science-engagement

As explained in chapter 1, the NOPLANETB project aims to involve disengaged citizens and institutions as the primary target group, as climate actions often target individuals who are already somewhat engaged and open to considering transition policies. These actions frequently propose solutions without sufficiently explaining the benefits, potentially alienating those who are less informed or sceptical.

While it may seem that the main objective is to improve knowledge within this group, based on the assumption that people rejected science due to a lack of information and fear of the unknown, this assumption is not entirely accurate. Indeed, surveys have shown that individuals with more scientific knowledge tend to have more positive attitudes toward science. However, distrust in science often arises not from a lack of knowledge but from a lack of trust in both the message and the messenger. Recent evidence indicates that those who reject or distrust science are often not poorly informed but rather believe they already understand it.[17].

The main goal is not only to increase knowledge, and thus improve engagement, but also to develop trust and general understanding of evidence-based climate policies.

The primary hypothesis is that reinforcing climate actions with comprehensible, scientific arguments can produce clear evidence of their benefits, **specifically by communicating robust scientific evidence and using clear messaging to demonstrate why a specific action matters** and what impact it will bring to individuals' daily lives.

This approach is expected to foster behavioural or policy changes among disengaged citizens and institutions by showcasing real, positive outcomes. However, before delving into practices, it is important to elaborate on the concept of engagement.

Level of engagement

There is not only one "dimension" of engagement, and less sensitive citizens and institutions are expected to interact on a different level with the proposed actions. To this end it may be useful to consider the different levels of engagement generally classified by experts[18] starting for the lower level (level 1) to the higher level of engagement (level 6).

[17] See *People with more extreme attitudes towards science have self-confidence in their understanding of science, even if this is not justified,* (Public Library of Science - Biology, different authors, January 2023). This survey suggests a "potentially general model" to explain why people differ in their degree of acceptance or rejection of science, namely that the more someone believes they understand the science, the more confident they will be in their acceptance or rejection of it.

[18] Different taxonomies of "engagement" are today elaborated and presented in the form of "pyramids", with level 1 at the base and level 6 on top. The present classification is extracted from the *DEAR MEAL Guide*, 2022, page 64.

Table 8: Intensity of engagement

Level of engagement	Indicator
①	**Incidental interaction**: contact with the action is incidental, via media articles, street events, promotional materials, or ads.
②	**Informed** spectator/aware: 1. Aware of the action and its issue through occasional visits to a project website, blog, or social media 2. Attended a lesson/session 3. Follower of social media accounts 4. Interested, keeps updated through direct communication (but with minimal further commitment).
③	**Supporter** of the action: performs simple actions like signing a petition or attending a meeting for discussion.
4	**Committed**: participates in multiple events, makes public statements of support, changes purchasing behaviour.
5	**Multiplier**: promotes the project to others, systematically involves others in the project's issues.
6	**Innovator**: develops and implements new ideas for promoting the action, engages others to create new initiatives and policies.

NOPLANETB envisions the disengaged reaching a standard of engagement ranging from Level 1 to Level 3. Level 3, in particular, is recognized as the target standard, where citizens and institutions not only perceive benefits but also actively engage with and positively interact with the implemented activities.

Science and communication

The proposed science-based approach **implies a stronger commitment in an accurate science-driven communication strategy,** thus investing resources to improve general understanding of climate related topics and to prepare the target audience to better manage disinformation and false information.

Therefore, science-based projects should consider the following perspectives in their **communication strategies:**

- Popular science[19]. Popular science is crucial for addressing climate change as it increases awareness and understanding by making complex concepts accessible to the public. It bridges the knowledge gap left by formal education and combats misinformation by providing accurate information. This is expected to reach a broader audience than academic sources, as it is accessible enough to engage diverse groups of citizens and enhance public debate. Although accurate, clearly delivered factual content is not sufficient for effective public engagement, correct scientific communication remains a must by helping citizens understand and advocate for evidence-based measures. Additionally, it promotes scientific literacy and critical thinking, essential for addressing global challenges like climate change.
- Linking to robust scientific knowledge. Make accessible and providing links to sources and to accurate and reliable scientific information (reliable magazines, blogs, scientific media, books) is assumed to foster a deeper understanding of scientific concepts. In this regard, the production

[19] The term "popular science" is used in this document to refer to the process of making scientific knowledge and discoveries accessible and understandable to a general audience. The main idea is to simplify complex topics without sacrificing essential accuracy, aiming to inform and inspire people who may not have a formal background in science.
It is important to remark here that in recent years, the concept of popular science has evolved significantly, driven by advancements in technology and changes in media consumption, such as digital platforms, data visualization, virtual reality, collaborations between media and scientists, citizen science (where projects involve the public in contributing to scientific research, like crowd-sourced data collection), and, more generally, the development of content aimed at reaching diverse demographics, including translations and adaptations for different levels of understanding.

of communication materials may amplify the result of an action if these materials are developed with a focus on accuracy and clarity.

- Transparency and scientific integrity. Invest time to ensure that all data and information used for communication purposes are reliable, where possible validated by experts. Promote a transparent and open scientific commitment, showing the limits of available information and working to build public trust in science and its ability to address complex problems is essential. Explain what science knows, what it is not known at the moment and emphasising that results are provisional, is a correct attitude to avoid dogmas in communication.
- Promotion of critical thinking. Involve, wherever relevant and feasible, the public in scientific research. Organise space for debates, propose contextualised stories, making people react to stimuli, bringing reliable and trusted key informants (like professors, researchers) to encourage critical thinking and rational analysis of information. Involvement is believed to help people critically evaluate claims and evidence, reducing the incidence of unanalysed beliefs and misinformation.

This means that messages should first focus on the target audience, backed by thorough research and supported by credible sources, as outlined below.

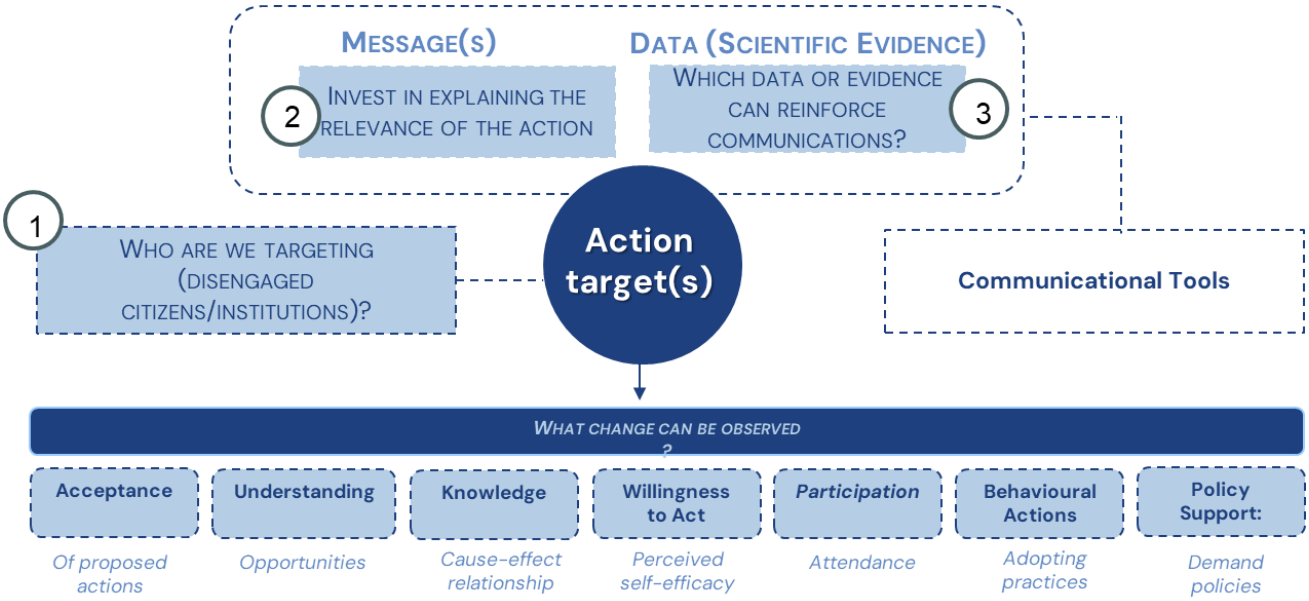


Figure 5: Communication pathway

In summary, using scientific evidence in climate awareness by creating more engaging, motivating, and effective messages, is expected to provide a solid foundation to educate, inform, and motivate the public to take proactive action to address climate and ecological crises. In contrast, it shall be remarked that incorrect science communication may drive people away.

To facilitate the discussion on "how" deliver effective science communication within projects, the following list of "do's and don'ts" is proposed[20].

[20] Ref. also to *Principles for effective communication and public engagement on climate change - A Handbook for IPCC authors*, Climate Outreach 2018

Table 9: Science-Based Communication Tips

Key element	Do	Don't
Language in general	Use clear, simple language that conveys the message without overwhelming the audience with technical details. Focus on the most relevant and impactful information.	*Distant Projections*: Messages that emphasize events far in the future or in remote locations, such as "by 2050 this will happen" or "the Arctic's permafrost will disappear," often fail to resonate with the audience. These scenarios seem too distant and disconnected from their immediate experiences and concerns. *Technical Jargon*: Messages overloaded with technical details, facts, and figures can overwhelm and disengage the audience. While accuracy is important, excessive technical information can make the message inaccessible and hard to relate to.
Role of the audience	Frame the message in a way that empowers the audience, highlighting their role in the solution rather than their contribution to the problem. Encourage positive actions citizens can take.	*Blame-Focused Narratives*: Stories that place blame on the audience for environmental issues tend to alienate rather than motivate. Blaming can lead to defensiveness and disengagement rather than inspiring constructive action.
Pessimism vs. Optimism	Combine the reality of climate challenges with hopeful solutions. Highlight success stories, innovations, and practical steps people can take to make a difference.	*Disaster-Only Focus*: Highlighting the catastrophic aspects of climate change without offering solutions can create a sense of helplessness and despair. It is crucial to balance the portrayal of challenges with actionable steps and hopeful outcomes to encourage positive engagement.
Role of scientists	Scientists generally hold high levels of trust. Give climate scientists a voice to stimulate awareness, provide accurate and authoritative information and to address questions and concerns from the public.	Give the idea that scientists are somehow divided on the causes of global warming and on closing the gap between the public and scientific consensus on climate change, which is a common and false misconception
Talk about the real world, not abstract ideas	Relatable and Immediate: Share stories that connect with the audience's immediate environment and daily life. Connect climate change to everyday experiences. Discuss local impacts of climate change and how it affects target community, making the issue more tangible and urgent.	Focus on abstract scientific concepts like global temperature targets. Forget to link climate change and everyday experiences (e.g. how rising temperatures impact local agriculture or how increased flooding affects neighbourhood infrastructure).
Clustering targets (Personal values)	Tailor messages to resonate with the values and beliefs of different target audiences (e.g. economic benefits of clean energy to business-minded individuals; moral imperative of protecting the planet for those with strong ethical or religious values).	Forgetting to find common ground with target audience, to base facts and figures of a scientific message grounded on a platform of shared values (wherever possible)
Human Stories	There is evidence that people often follow stories better than figures. Success stories, based on the application of scientific knowledge to address climate change, such as renewable energy projects, emission reduction policies, or adaptation initiatives, may help to humanizes science, making it more relatable.	Rely only on stories without accurate, clearly delivered factual content.
Visual communication	Effective visual aids are crucial in communication. Using evidence-based visuals (e.g. infographics, charts, and videos to present data in an engaging way) can make complex information easier to digest and more appealing, ensuring they are easy to understand and relevant to the message.	Forget about the above-mentioned recommendations; develop visual communication incoherently with the scientific approach.

Talk like humans

Combining accurate scientific information with engaging communication strategies in the climate field is not easy nor simple. A British journalist, Roger Harrabin recently noted that some words are preferable to avoid creating unnecessary distance among different citizen groups. For example, the term "green economy" might be replaced with the more approachable "clean economy". Similarly, "cost" could be reframed as "investment," and "saving the planet" could be shifted to "protecting our society."

These examples are not explicitly recommended, but are given simply to illustrate how terminology can play a crucial role in climate communication. Technocratic language and abstract terms (e.g., anthropogenic, decarbonization, or 1.5 Paris Declaration) can be barriers to understanding. On the other hand, it is also important not to oversimplify the situation we are living in and the consequences of inaction, both in terms of environmental degradation and unjust transitions. Effective communication should strike a balance between clarity and accuracy, ensuring that the public grasps the urgency and complexity of the climate crisis without being overwhelmed by technical jargon.

Step-by-step guidance from start to finish

The following table offers some suggestions on how to make the above information more practical, though not complete or exhaustive. This guidance aims to direct actors towards a method that allows for refining analysis leading to concrete and effective action throughout the various stages of project development.

Table 10: Science-based communication throughout the project cycle

Phase	To be ensured	Examples
Start up	· Clarification of the target audience with particular attention to the "disengaged" (their definition, characteristics, barriers to be considered, etc.). · Analysis of main "bias" (disinformation, fake news) related to the action's topic. · Analyses of sources (blogs, platforms, books, other similar projects) · Identification of key data to disseminate (with the source to be quoted). · Definition of communication strategies.	Action: *green city* · Disengaged: students in deprived suburbs · Bias: climate topics are irrelevant to them today. · Sources: generative action in city "X", data from UN-HABITAT regarding the nexus between quality of life and health. · Key data: impact on health due to environmental damage.
Implementation	· Preparation of key messages (include data). · Preparation of infographics · Identification and engagement of key informants where possible. · Implementation of strategy with focus on: 1) why the problem is relevant; 2) why the action results (outcomes) are relevant.	· Key messages: engagement may shift daily life. · Infographic: reachable outcomes in figures (what elements of youth's daily lives will improve from the action if…). · Influencer and professors · Implementation: 1) series of activities/materials which explain the problem; 2) series of activities/materials which explain the impact once the action is concluded successfully.
Conclusion and follow up	· Dissemination of action results, deriving them from key resources (explaining the action achievement by compering to similar results obtained in other contexts/projects/researches). · Where possible, use the insights gained to inform decision-making and improve practical applications.	· A brief video and factsheet are prepared with the data/info collected, illustrating progress towards the actions goals and potential future impact with additional resources/actions · Worksop is organised with members of the city (or district) council, inviting media and local donors (and other relevant actors) to capitalise on the experience and define (common) agendas.

Linking key messages to materials

To further facilitate practical application in the case study just presented, three factors could be considered: 1. the key message, 2. the data, 3. the tool, as follows:

1. Key message: benefit of urban gardens and positive impact on citizens.
2. Data (not exhaustive): A tree can absorb up to 150 kg of CO2 per year, sequester carbon and consequently mitigate climate change, and/or (more concrete): Strategic placement of trees in urban areas can cool the air by between 2°C and 8°C.
3. Communication tool: poster (see below).

(*) "Benefits of urban trees", elaborated by FAO

Regarding the use of data, it is strongly suggested to ensure a clear, transparent, accountable and traceable use of references. This means that for each project product (hard copy material, audio or video material, website content, etc.), the project owner (CSO) should list the references used at the end of the product or in a similar location.

Finally, in order avoid mispresentation of facts and figure the **following tips** should be considered:

- List of literature references shall be appropriate.
- Representative poll results of well-known public opinion research companies can be used as a reference.
- Triangulate less rigorous research sources before use: Wikipedia, About.com, message boards, SEO Sites, personal statements.
- The references shall be reasonably up to date.
- Primarily use national references, which can be cross referenced with international ones.

3. IN SUMMARY: PROPOSED GUIDELINES FOR DESIGNING SMALL-SCALE SCIENCE-INFORMED CLIMATE INITIATIVES FOR DISENGAGED AUDIENCES

Based on the general concepts presented in the previous chapters, this final section aims to outline concrete recommendations on how to design and implement small-scale projects using the proposed NOPLANETB science-based approach. While it is not intended to serve as a comprehensive guide on project design methods, it does provide practical tips for preparing projects in the framework of NOPLANETB's action.

Planning: the importance to be focalised on limited aspects to avoid unrealistic objectives

Especially for projects with limited resources, focusing on a few key aspects allows for a more targeted and manageable approach to planning. It enables project managers and stakeholders to allocate resources efficiently, set achievable milestones, and track progress effectively. By narrowing the focus to clear and realistic objectives, project teams can maintain clarity and alignment in their efforts, thereby increasing the likelihood of success.

In summary, consistent with the discussion in Chapter 2.1, it is proposed to focus small projects on a single primary problem and a single main desired outcome as elaborated in the table below.

Table 11: Tips for small-scale project identification

Suggestion	Explanation
Focus on one main "focal" problem	When articulating why the project is significant for the target audience, it is crucial to provide a detailed and understandable explanation. This entails elaborating what is the identified problem and how it impacts the community, whether it's a physical neighbourhood or an online group. For example, if the project aims to improve a public space (such as a garden) the explanation could explain why the current situation created problems to actual and potential users.
Focus on one main desired change (outcome):	Limiting the project to one main outcome, that the action aims to achieve, helps provide clarity and direction to the project. This involves identifying the desired change or impact that the project seeks to bring about. By clearly defining this outcome, the project may explain how different stakeholders (e.g. citizens, local institutions) can align their efforts and resources towards achieving it. For instance, in the above-mentioned example, the improved public parks may lead to a better access and use with an estimated positive impact in terms of socialisations, information regarding the benefit of public green urban space and better cooperation among small enterprises active in the neighbourhood.

Considering a project targeting disengaged audience, the action logic may be summarised in the following picture.

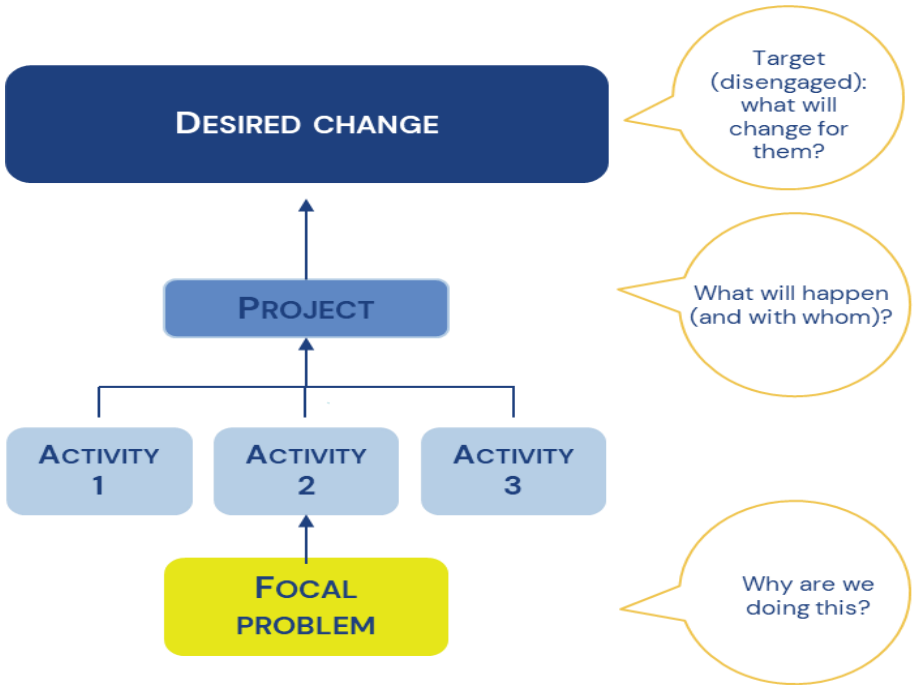


Figure 6: Proposed small-scale project results chain

Anchoring small-scale projects to science

This simple yet robust structure, however, is not sufficient to ensure that a project possesses a science-based foundation, nor does it guarantee the ability to communicate and interact effectively with climate-disengaged citizens and institutions, which is, above all, the approach that the NOPLANETB Action aims to test.

Several considerations on how to make projects more science-based and how to reach the disengaged have already been reported in previous sections. Among these, the following challenges deserve to be remarked.

- Within the limits of the project-design, **evidence** shall be the basis of the result-chain from identifying the problems to defining the objectives.
- The focal problem should be clearly defined and supported by **existing scientific literature and accurate data**.
- Its explanation must be **transparent and traceable**, ensuring that others can verify the reliability of the information and data provided.
- The project shall explain **how disengaged citizens and institutions will be targeted**.
- Activities shall be clearly linked to the planned change and shall explain **how key messages will be communicated**.
- The main expected changes should be based on **similar projects, documents, research or other means that provide a realistic description** (based on data, evidence) of the tangible benefits for the target beneficiaries.

This information can be added to the infographic as follows:

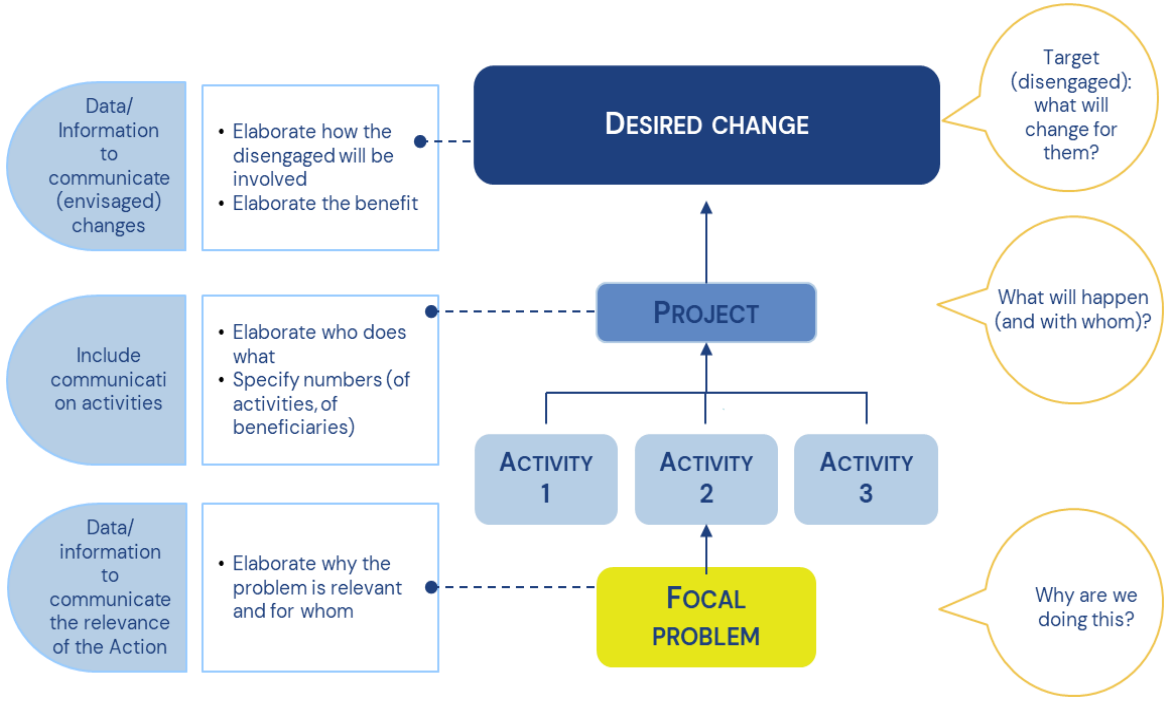


Figure 7: Proposed "science-based project" results chain

Practical arrangements for small-scale projects

Practical application of these concepts can be challenging, particularly when resources are limited and investing in an expensive and in-depth feasibility study is unrealistic. The following "Do's and Don'ts" table aims to provide simple suggestions for practical application.

Table 12: Tips for small-scale project formulation

Topic	Do	Don't
Explanation regarding why the project is important	• Clearly articulate the focal problem or gap in society that the project aims to address. • Use reliable and traceable data and evidence (quoting them) to demonstrate the significance and urgency of this need. • Highlight the negative impact on the target community.	• Describe, analyse, report on too many problems. • Explain problems that are not linked to the target audience's daily life (e.g. a global problem with no direct implication for the target group).
Activity description	• Aggregate activities in maximum three groups. • Ensure that the activity explains: I. what will be delivered II. to whom III. how disengaged will be targeted	• Making project plans overly complex or too imaginative. • Forget to be extremely clear, realistic, and to the point when describing the activities and how they are linked to the objectives.
Identification of project objectives	• Explain the positive changes (benefits) that the action will bring to (each) target group. • Explain the expected improvements in quality of life, mitigation of specific issues, and new opportunities for individuals, communities, or stakeholders, using scientific literature, data, and evidence.	• Include more than one clear objective (desired changes/main outcome). • Use generic terms (e.g. "support citizens") and/or define beneficiaries too broadly ("all citizens in a given country/region"). • Forget to identify disengaged citizens (or institutions) as target beneficiaries.

Topic	Do	Don't
	• Whenever relevant, describe how the project will be sustainable and how it will pave the ground for future projects.	
Elaboration of monitoring and evaluation plan	• Unless crucial for reaching the action's objective (e.g., citizen science projects, internal research), concentrate monitoring and evaluation tasks only to track the main deliverables and the number of beneficiaries involved. • Ensure that results are consolidated and shared (including failures)	• Include an external evaluation exercise. • Plan costly data collection methods to measure project impact.
Communication	• Describe how the project will be communicated (problem addressed, desired changes). • When considering communication, elaborate how the disengaged will be targeted. • Describe how the project will mitigate gender stereotypes and will foster youth and women participation. • Promote discussion about replication/further activities fostering more sustainable effect.	• Confuse visibility (logos and name of project) with communication activities. • Underestimate resources and work required to ensure proper project communication (methods, tools, clear targets, etc.).

Example of micro (science-based) project proposal

To conclude this section, the following template is provided as an example of how a project can be prepared to align with the key elements outlined above. It is important to note that this example is not intended to prescribe the exact structure of any specific science-based project targeting a disengaged audience, nor does it aim to be exhaustive. Creativity, robust design, and investment in new and innovative ideas remain essential for achieving the overall NOPLANETB goals.

Table 13: Example of science-based small-scale project targeting disengaged audiences

Action title	Cultivating Community: A Garden for Socialization, Environmental Education, and Cooperative Growth
Focal Problem	A degraded area within the community is disused, while also a place for illegal waste disposals and urban decay. This space thus creates safety and hygiene problems, limits socialization opportunities, and reduces the overall quality of the living environment. Data about impact on air quality, soil contamination, and public health risks are gathered and provided. Research indicates that neglected urban areas can become hotspots for crime and anti-social behaviour, impacting community safety and well-being (Kuo and Sullivan, 2001). Other evidence (e.g. FAO) prove how urban forests have a strong impact, for example in providing shade and releasing water vapour through transpiration, which cools the air. This can lower urban temperatures by up to 5-7 degrees celsius. Reduced temperatures can decrease the need for air conditioning, leading to lower energy consumption and reduced emissions from power plants.
Main Outcome	Transforming the degraded area into a community garden will encourage resident participation, improve the neighbourhood's aesthetic appeal, and offer accessible green spaces for everyone. A similar project (e.g. the Toronto's urban forest project, sources: *Toronto Parks, Forestry & Recreation, "Every Tree Counts: A Portrait of Toronto's Urban Forest"*) shows the important impact on of urban gardens on ecological services (CAD 28.2 million annually in the example), including air pollution removal, carbon sequestration, and energy savings. In addition, it will become a meeting point for residents, promoting social activities, enhancing community cohesion, and raising awareness about the importance of green spaces. Awareness on how the issue is reflected in the Global South will be also included.

Action title	Cultivating Community: A Garden for Socialization, Environmental Education, and Cooperative Growth
Activities	● Activity 1: cleaning up the degraded area with the participation of residents. ● Activity 2: designing the garden with the involvement of the residents (needs, ideas etc.) and with the support of an expert in urban landscaping and biodiversity, using scientific principles to choose plants suitable for the local environment that improve biodiversity and air quality. This will include planting trees and plants, installing benches and playgrounds. ● Activity 3: organizing events: → community events (e.g., gardening workshops, workshops to explain the scientific benefits of green spaces such as pollution reduction, mental and physical health improvement and biodiversity promotion) to encourage the use of the garden. → Lecture on the importance of planting trees in the Global South
Scientific communication	The project will contact residents through flyers showing that access to natural environments significantly reduces stress and improves mental well-being (source: Berman et al., 2012; Bratman et al., 2015). Accurate infographics and data about the design and benefits of the garden will also be communicated via social media, and neighbourhood meetings, involving local media to increase the project's visibility.
Identification and engagement of disengaged groups	Although all citizens and businesses will be targeted, the project will specifically involve those citizens who oppose investment in green areas, claiming that the municipality should first resolve the parking problems. This target group will be engaged through open events where the parking issues will be balanced with the benefits of increasing green spaces. These events will highlight the concrete advantages of these measures and propose alternatives to parking. Local businesses will also be involved to explain how research shows that properties near green spaces and urban forests often have higher market values. For example, property values in Portland, Oregon, increased by 3-5% for homes within 1,500 feet of a park. Sharing success stories and testimonials from citizens who have changed their perceptions will also be encouraged to promote positive communication.

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