

Wind4Bio

Increasing the Social Acceptance of Wind Energy

SEPTEMBER 2023

**D2.1.1: GOOD PRACTICES AND POLICY
RECOMMENDATIONS ON DEVELOPING
CONSULTATION
AND COOPERATION MECHANISMS BETWEEN
PUBLIC ADMINISTRATION AND CIVIL SOCIETY**

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Report on good practices and policy recommendations on developing consultation and cooperation mechanisms between public administration and civil society

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Activity: A II.1

The opinions put forward in this report are the sole responsibility of the author(s) and do not necessarily reflect the views of the Federal Ministry for Economic Affairs and Climate Action (BMWK).

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Executive Summary

This deliverable aims to provide valuable insights into good practices for enhancing civil society engagement in wind energy projects. It focuses on five key areas: participatory planning and permitting procedures models, collective initiatives for biodiversity protection and local ecosystem preservation, awareness raising and communication strategies, mechanisms and fora for local community consultations and consensus building and joint financial planning. By examining successful case studies and expert recommendations, this study offers policy recommendations to both policy makers and project planners. Furthermore, implementing these recommendations, policy makers and project planners can foster social acceptance of wind energy projects, increase collective environmental preservation, as well as sustainable development. Ultimately, the study aims to contribute to a holistic and inclusive approach to wind energy that aligns with community needs and effectively promotes civic engagement in mitigating the adverse effects of wind farms.

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Table of Contents

Table of Contents.....	4
Introduction.....	5
1.1 Background	5
1.2 The Wind4Bio project.....	5
1.3 Activity 2.1	6
2 Impact evaluation of wind energy projects	7
2.1 State-of-play.....	7
2.2 Wind energy and public dissent.....	8
2.3 The value of participatory practices in mitigating conflicts	11
3 Methods for identifying good practices	13
3.1 Defining social acceptance.....	14
3.2 Factors affecting social acceptance in wind energy projects.....	15
4 Good practices	20
4.1 Participatory planning and permitting procedures models for the design and operation of wind farms.....	20
4.2 Collective initiatives for biodiversity protection and local ecosystem preservation	23
4.3 Awareness raising and communication strategies	25
4.4 Mechanisms and fora for local community consultations and consensus building.....	28
4.5 Joint financial participation.....	31
5 Policy recommendations.....	35

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Introduction

1.1 Background

Wind energy is a crucial component of the EU's transition to a more sustainable and low-carbon energy system. The European Union has set ambitious climate and energy targets to combat climate change, reduce greenhouse gas emissions and increase the share of renewable energy in its energy mix. Wind energy plays a significant role in achieving these targets by providing a clean and renewable source of electricity generation, as wind turbines produce electricity without burning fossil fuels, thereby avoiding the release of carbon dioxide (CO₂) and other harmful pollutants associated with traditional energy sources.

By harnessing the power of wind, they generate clean, renewable energy without depleting precious resources or emitting harmful pollutants. However, without social acceptance, the full potential of wind farms cannot be realized. Currently, public concern over the development of wind energy projects in the Wind4Bio countries (Poland, Greece, Latvia) is prevalent, as civil society actors often oppose to emerging wind energy projects. Garnering support from local communities, wind farms can positively address environmental challenges, such as land use concerns or the impact on wildlife habitats, through careful planning and collaboration.

1.2 The Wind4Bio project

Wind4Bio seeks to tackle a key obstacle hindering the development of wind farms in collaborative regions. This obstacle pertains to the opposition from the general public towards wind farms, primarily due to concerns regarding the impact on biodiversity arising from the installation, operation and dismantling of wind turbines. To effectively realise this objective, the project will adopt a comprehensive approach that encompasses various target groups. Actions will be targeted towards public authorities, civil society, environmental NGOs and business stakeholders active in wind energy projects. Wind4Bio utilizes a number

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of tools to facilitate dialogue among these actors, such as capacity building workshops, deliberative fora for consensus building as well as consultation mechanisms among others. Overall, the project seeks to improve territorial wind energy planning approaches by introducing novel dialogue and conflict mitigation practices in the participating countries. Furthermore, Winf4Bio seeks to embed the project approach in the climate policy frameworks of the target countries', to facilitate a climate policy convergence.

1.3 Activity 2.1

Activity A2.1 "Identification of good practices on improving cooperation between public authorities, environmental NGOs and other civil society organisations, pertaining to the deployment of wind power projects in areas of increased biodiversity," is designed to enhance partners' intelligence on practices and mechanisms implemented by public authorities, local communities and business stakeholders for increasing collaboration in wind energy projects. Furthermore, the activity aims to increase partnership knowledge on conflict mitigation methods utilized for addressing public acceptance concerns regarding wind farm installations.

In this context, the author will identify and outline good practices, focusing on: a) participatory models in planning and permitting procedures; b) collective initiatives on environmental management and biodiversity protection; c) awareness raising activities and communication strategies and d) consultation and consensus building mechanisms. Moreover, D2.1.1 "Good practices and policy recommendations on developing consultation and cooperation mechanisms between public administration and civil society" drawing from the identified good practices, will develop policy recommendations for public authorities on how to improve communication and cooperation channels with civil society and relevant stakeholders to maximise the economic and social benefits of wind energy projects.

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2 Impact evaluation of wind energy projects

Wind energy has emerged as a popular and promising renewable energy source in recent years. It harnesses the power of wind to generate electricity, reducing dependence on fossil fuels and mitigating environmental concerns. However, like any other energy source, wind energy comes with its own set of advantages and disadvantages. In this section, we will delve into a thorough analysis of the advantages and disadvantages of wind energy, exploring its positive impacts on the environment and economy as well as the challenges it faces. The primary focus will be in Europe. Furthermore, this section identifies key factors behind civil society opposition to wind farms in Europe, focusing on concerns related to environmental impact, biodiversity, cultural heritage, public health, energy costs and community engagement¹.

2.1 State-of-play

Currently, Europe is a global leader in renewable energy, particularly in the field of wind power. The continent's commitment to transitioning towards a sustainable energy system has led to numerous advantages associated with wind energy. Wind resources in the European territory are abundant. Coastal areas, such as the North Sea and Baltic Sea, along with high-wind regions in mountainous terrains, provide excellent conditions for wind energy production. This geographical advantage has enabled Europe to tap into vast wind potential, creating a solid foundation for its wind energy industry. In addition, wind energy is a renewable energy source that produces no direct emissions or air pollutants during operation. As Europe strives to reduce its carbon footprint and combat climate change, wind power plays a crucial role in achieving these environmental goals. As indicated by [IEA](#), in 2022 wind energy comprised 22% of Europe's

¹ <https://ctmirror.org/2018/06/13/connecticut-joins-offshore-wind-rush/>

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energy share. By replacing fossil fuel-based electricity generation, wind energy significantly contributes to the region's clean energy transition.

A key parameter that emerged during the COVID-19 pandemic and was exacerbated by the Russo-Ukrainian war is energy security. Europe's reliance on imported fossil fuels has historically posed challenges in terms of energy security. Wind energy offers a solution by diversifying the energy mix and reducing dependence on external sources. By employing its abundant wind resources, Europe can strengthen its energy security, ensuring a stable and resilient energy supply for its citizens. An increased and efficient deployment of the full potential of wind energy has significant impact in job creation and economy growth. The wind energy sector in Europe has become a significant driver of job creation and economic growth. The installation, maintenance and operation of wind farms require a skilled workforce, leading to employment opportunities throughout the value chain. According to the European Wind Energy Association, the wind industry employed over 300,000 people in Europe in 2020². This growth not only boosts local economies but also stimulates innovation and technological advancements.

Furthermore, Europe's investment in wind energy research and development has fostered technological advancements and innovation within the industry. The continuous improvement of wind turbine design, efficiency and energy storage technologies has contributed to increased energy production, as well as enhanced grid integration capabilities. Europe's focus on innovation positions it as a global leader in wind energy, driving further progress in the sector.

2.2 Wind energy and public dissent

Although wind energy has emerged as a prominent renewable energy source in most EU member states, wind energy projects often face opposition from civil

² Wind energy in Europe 2022 Statistics and the outlook for 2023-2027

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society and environmental NGOs. Public dissent evolves mainly due to concerns about environmental impact, biodiversity conservation, public health, landscape aesthetics, community engagement and policy frameworks.

While wind energy is generally considered environmentally friendly, critics argue that poorly sited or inadequately planned projects can harm local ecosystems, leading to significant public opposition to a number of wind energy projects. The construction and operation of wind turbines can have adverse effects on bird and bat populations, leading to collisions and habitat disruption. Furthermore, the installation of turbines in ecologically sensitive areas can fragment habitats and disrupt migratory patterns. Environmental organizations advocate for comprehensive environmental assessments, stringent regulations and improved monitoring and mitigation strategies to minimize the negative impact on biodiversity³.

Furthermore, opposition to wind energy projects often emerges from concerns regarding the preservation of biodiversity and protected areas. Europe is home to numerous habitats, protected areas and civil society and environmental NGOs argue that wind farms should not be installed in these regions, as they can harm unique ecosystems and species. Critics contend that insufficient consideration is given to the cumulative impact of multiple wind energy projects in sensitive areas. They call for better spatial planning, stricter regulations and the prioritization of alternative energy sources in ecologically valuable regions. Balancing renewable energy development with biodiversity conservation becomes a critical challenge, requiring integrated approaches and effective policy frameworks⁴.

³ <https://www.bostonglobe.com/metro/2015/01/08/legal-wrangling-horizon-for-cape-wind-after-major-utilities-pull-out/kIEXaT5x4lkfUplijpdtSL/story.html>

⁴ <https://www.boem.gov/newsroom/press-releases/boem-identifies-wind-energy-area-offshore-massachusetts-potential>

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Public health concerns related to wind energy projects contributes to civil society opposition. Some individuals residing near wind farms report experiencing adverse health effects, including sleep disturbances, annoyance and stress. While scientific studies have not definitively established a direct causal link between wind turbines and these health effects, the phenomenon known as "wind turbine syndrome" is a subject of ongoing debate. Critics argue that the noise generated by turbines, visual impacts and psychological factors contribute to these health concerns. To address these issues, research suggests that policy makers should engage with affected communities and implement mitigation measures, such as appropriate setback distances and noise abatement technologies⁵.

Even though in non-Western countries this factor is not often expressed by civil society actors, in Europe the visual impact of wind energy projects on landscapes and cultural heritage sites is a significant source of opposition. Europe's rich cultural heritage and iconic landscapes are valued by both locals and tourists and the presence of wind turbines can be seen as detracting from the aesthetic appeal of these areas. Critics argue that the construction of wind farms compromises the scenic beauty, impacting tourism and the cultural value of the landscape.

Additionally, concerns about conflicts of interest and lack of transparency in policy-making processes lead to suspicions of undue industry influence.

Overall, the lack of meaningful community engagement and local decision-making processes further contribute to opposition. Communities often feel excluded from the planning and decision-making processes, leading to a sense of powerlessness and mistrust. It is often the case that public consultations take place after key decisions have already been made, resulting in frustration and a sense that processes of public engagement are of secondary importance. Furthermore it is claimed that the benefits of wind energy, such as job creation and local revenue

⁵ https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100.

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generation, do not always reach affected communities adequately. Disparities in the financial benefits of wind farms erode public trust, as communities bearing most of the adverse effects of wind projects are not appropriately compensated. As will be shown in detail later in this study, early and inclusive community engagement, transparent communication and participatory decision-making processes can help address these concerns and foster acceptance⁶.

2.3 The value of participatory practices in mitigating conflicts

Addressing public trust issues stemming from the installation and operation of wind farms is essential for the growth of wind energy in Europe. One approach that has proven effective is the implementation of participatory practices, which involve engaging local stakeholders in decision-making processes. Participatory practices bring together various stakeholders, including community members, developers and government representatives, to share information and knowledge regarding wind farm projects. Through consultations, public meetings and workshops, community members can gain a deeper understanding of the benefits and potential drawbacks of wind farms. Likewise, developers can learn about local concerns and address them effectively. This mutual learning and knowledge sharing lay the foundation for more informed decision-making and reduce misunderstandings, ultimately minimizing social conflicts⁷.

In addition, local stakeholder engagement in the decision-making processes foster transparency, trust and collaboration. When community members feel that their concerns and opinions are taken into account, they develop a sense of ownership

⁶ DGRV (2019): Energy cooperatives: Results of DGRV-Survey. Available online at [https://www.dgrv.de/weben.nsf/2a1a6cd05dbb01c0c1256e2f005612d1/baac6a28bc9bd7a9c125844100380e47/\\$FILE/Survey_Energy_Cooperations_2019.pdf](https://www.dgrv.de/weben.nsf/2a1a6cd05dbb01c0c1256e2f005612d1/baac6a28bc9bd7a9c125844100380e47/$FILE/Survey_Energy_Cooperations_2019.pdf), checked on 6/30/2020.

⁷ Beery, J.A., Day, J.E., 2015. Community investment in wind farms: funding structure effects in wind energy infrastructure development. *Environ. Sci. Technol.* 49, 2648–2655.

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and trust in the project. This inclusive approach also helps build relationships between developers and communities, enabling them to work together towards common goals. Through joint planning and engagement, stakeholders can co-create solutions that align with the needs and aspirations of the community. By building trust and collaboration, participatory practices reduce the likelihood of conflicts and facilitate the implementation of wind farm projects⁸.

Also, such practices provide opportunities for local communities to actively participate in the benefits generated by wind farms. Civil society actor engagement in negotiations can secure tangible benefits for local communities, such as revenue-sharing agreements, local job creation, or community investment funds. These benefits empower local actors economically and enhance their active support for wind energy projects. Additionally, participatory practices enable the integration of community values and preferences into the project design, ensuring that it aligns with local needs and aspirations. This localized approach increases the acceptance and support for wind farms, minimizing social conflicts and creating a shared sense of responsibility for their success.

⁸ Enevoldsen, P., Sovacool, B.K., 2016. Examining the social acceptance of wind energy: practical guidelines for onshore wind project development in France. *Renew. Sustain. Energy Rev.* 53, 178–184.

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3 Methods for identifying good practices

This section will outline the steps taken for the identification of case studies showcasing good practices for community engagement in wind energy projects across Europe. By analysing these examples, project partners can gain valuable insights and learn from successful experiences. Implementing effective community engagement strategies not only ensures project acceptance but also promotes long-term benefits and positive relationships between wind energy projects and local communities. The section starts with a literature review on public acceptance pertaining to wind energy projects and proceeds with the development of an operational framework upon which the selection of good practice cases was based on.

The thematic focus of the identified good practice cases involves: a) participatory planning and permitting procedures models for the design and operation of wind farms; b) collective initiatives for biodiversity protection and local ecosystem preservation; c) awareness raising and communication strategies; d) mechanisms and fora for local community consultations and consensus building and d) joint financial participation⁹. The identified good practices cases are 10, stressing to countries with rich tradition in wind energy development, namely Germany, Italy Sweden, Denmark, Wales, England and Scotland.

Building upon the conceptual framework developed at the Wind4Bio Good Practice Report (AI.1), this deliverable establishes three criteria (replicability, effectiveness and relevance) to ensure that findings are robust, transferable and applicable to the challenges posed by civil society actors in wind energy projects.

Effectiveness:

⁹ Lienhoop, N., 2018. Acceptance of wind energy and the role of financial and procedural participation: an investigation with focus groups and choice experiments. *Energy Pol.* 118, 97–105.

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Through the analysis of the effectiveness of a good practice case, the deliverable will provide evidence-based insights into the success of different participatory approaches in mitigating biodiversity risks, promoting local ownership and fostering community-driven engagement in wind farm projects. Overall, the application of this criterion promotes the selection of practises that have demonstrated their potential to have a positive impact on participatory community engagement for the mitigation of adverse wind farm effects.

Replicability:

This criterion was selected in order to assist in the identification of practices that can be applied in various contexts and locations, which face similar challenges related to the social acceptance of wind farm projects. Highlighting replicable good practice cases will provide the Wind4Bio partners with a toolkit of successful strategies that have already been tested and proven effective in engaging local communities and relevant stakeholders for the mitigation of conflicts emerging from the development of wind farms. furthermore, the identified practices can serve as points of discussion in future project activities (such as the upcoming stakeholder meetings).

Relevance:

Relevance is fundamental in ensuring that the identified good practice cases are applicable to the Wind4Bio territorial landscape. Given the diverse geographical locations and unique societal conditions of the project participating countries, evaluating relevance becomes essential for policy makers and project developers who will apply the suggested recommendations, with the necessary adaptations.

3.1 Defining social acceptance

Social acceptance in the context of wind energy refers to the level of approval and support of relevant initiatives by the local communities and broader society. It

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encompasses the attitudes, beliefs and behaviours of individuals and groups toward the development, operation and impacts of wind energy facilities.

The successful implementation of wind energy projects relies not only on technical feasibility and economic viability but also on addressing and engaging with social considerations. These considerations include public perception, community engagement, stakeholder involvement and the mitigation of potential negative social impacts. Social acceptance plays a crucial role in shaping the outcomes of wind energy projects and their long-term sustainability.

At the core of social acceptance is the need to balance the benefits of wind energy, such as renewable power generation, reduced greenhouse gas emissions and energy independence, with the concerns and interests of local communities¹⁰.

3.2 Factors affecting social acceptance in wind energy projects

Various studies^{11 12} have examined the factors determining social acceptance of sustainable technologies. The most prominent practices and tools for facilitating dialogue among civil society actors, policy and business stakeholders involve:

1. Participatory planning and permitting procedures models for the design and operation of wind farms
2. Collective initiatives for biodiversity protection and local ecosystem preservation
3. Awareness raising and communication strategies

¹⁰ <https://www.sciencedirect.com/science/article/abs/pii/S0301421511001972>

¹¹ Wüstenhagen, R., Wolsink, M., Bürer, M.J., 2007. Social acceptance of renewable energy innovation: an introduction to the concept. *Energy Pol.* 35, 2683–2691.

¹² Walker, C., Baxter, J., 2017. It's easy to throw rocks at a corporation": wind energy development and distributive justice in Canada. *J. Environ. Pol. Plann.* 19, 754–768. Warren, C.R., Lumsden, C., O'Dowd, S., Birnie, R.V., 2005. 'Green on green': public perceptions of wind power in Scotland and Ireland. *J. Environ. Plann. Manag.* 48, 853–875.

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4. Mechanisms and fora for local community consultations and consensus building
5. Joint financial participation

Participatory planning and permitting procedures models

Participatory planning and permitting procedures for wind farms are instrumental in increasing social acceptance. These processes foster transparency, stakeholder engagement, address community concerns and maximise social and economic benefits. Policy tools related for effective civil society engagement in participatory planning and permitting procedures include, public hearings, surveys and debates to address public concerns. Often processes involve joint environmental impact assessment where public actor deliberations have legally binding effect, as well as referendums and the ability to appeal the project development plans. Such practices provide a platform for addressing community concerns and incorporating local values into the project's design. Overall, by including local communities in decision-making, wind farm projects can be developed in a manner that respects the interests, values and aspirations of all stakeholders, leading to enhanced social acceptance and support¹³.

Collective initiatives for biodiversity protection and local ecosystem preservation

Participatory practices and initiatives for the mitigation of the impact of wind farms on biodiversity and local ecosystems positively connect with community acceptance¹⁴. First, bottom-up citizen led initiatives that prioritize the protection and preservation of local ecosystems, wind farm developers demonstrate their commitment to minimizing adverse effects. Measures and practices for collective

¹³ Schlosberg, D., 2007. Distribution and beyond: Conceptions of Justice in Contemporary Theory and Practice, Defining Environmental Justice. Oxford University Press, Oxford, pp. 11–40.

¹⁴ <https://portals.iucn.org/library/sites/library/files/documents/2021-004-En.pdf>

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biodiversity protection involve local advisory groups represented at all stages of a wind farm development and operation, community decision-making panels comprised of local citizens who participate in project-related decision-making processes, legal advocacy citizen committees for wildlife and biodiversity preservation and citizen-science collaboration schemes among others.

These measures reassure that the project is being carried out with due consideration for the environment and wildlife, thereby enhancing their acceptance and support. Second, such actions can contribute to the overall health and resilience of the ecosystem, benefiting both the environment and the community¹⁵.

Awareness raising and communication strategies

These strategies facilitate the dissemination of accurate information, address concerns, engage stakeholders and promote a positive perception of wind energy. Participatory practices for information sharing regarding the planning, construction and operation of wind farms among the affected communities and relevant stakeholders is key for enabling civil society cooperation with project developers. In contrast, misinformation or lack of knowledge can lead to misconceptions and scepticism among the public. Awareness raising strategies can include public workshops, social media campaigns, digital tools for interactive information sharing, regular newsletters and door-to-door visits. Thus, open and transparent communication builds trust, reduces uncertainties and helps alleviate community concerns, thereby fostering social acceptance¹⁶.

Mechanisms and fora for local community consultations and consensus building

¹⁵ Wüstenhagen, R., Wolsink, M., Bürer, M.J., 2007. Social acceptance of renewable energy innovation: an introduction to the concept. *Energy Pol.* 35, 2683–2691.

¹⁶ CSE, Centre for Sustainable Energy, 2007, 'The Protocol for Public Engagement with Proposed Wind Energy Developments in Wales', A report for the Renewables Advisory Board and DTI

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One of the key reasons why local community consultations and consensus building fora increase public acceptance is because they provide civil society with a platform to voice their concerns and preferences and increase their ability to influence the developments in the wind energy sector. The establishment of mechanisms for consultations and consensus building processes, such as public meetings, workshops, or surveys, civil society actors can express their views, ask questions and raise any concerns they may have. Therefore, inclusion and active engagement help ensure that community perspectives are taken into account during the decision-making process, leading to more socially and environmentally acceptable wind farm designs.

Additionally, local community consultations and consensus building fora improve the local actors' understanding of the social and economic benefits associated with wind farms. The active community involvement through deliberative platforms allows project developers to identify opportunities for local employment, business partnerships and community investment. These initiatives generate positive economic impacts and improve the overall quality of life for local residents, resulting in mutually beneficial outcomes for all concerned parties¹⁷.

Joint financial participation

Joint financial participation describes the involvement of local communities in wind farm projects through partnerships or ownership schemes aiming to distribute the economic benefits among residents more evenly. Collaboration between civil society actors and public administration can foster public perception of wind farms, benefiting both the community and the broader public interest. Alternative ownership schemes or community funds, for instance, promote economic growth by stimulating employment, creating business

¹⁷ Devine-Wright, P., (2012), 'Fostering Public Engagement in Wind Energy Development: The Role of Intermediaries and Community Benefits'

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opportunities and attracting investments. Local contractors, suppliers and service providers benefit from the demand generated by wind farm construction and operation. Furthermore, revenue sharing models and royalties generated from wind farms can fund community projects, such as schools, healthcare facilities, or infrastructure development. The economic benefits derived from joint financial participation strengthen the local economy, improve living standards and reduce the perceived negative impacts of wind farms¹⁸.

¹⁸ Yildiz, "O., (2014). Financing renewable energy infrastructures via financial citizen participation – the case of Germany. *Renew. Energy* 68, 677–685.

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4 Good practices

This section will elaborate on the good practice cases identified for this study, which were identified in accordance with the operational framework described in section 3. By highlighting successful strategies and lessons learned, this section seeks to provide guidance to policymakers and community representatives on fostering meaningful cooperation and increasing social acceptance and involvement in wind energy initiatives.

4.1 Participatory planning and permitting procedures models for the design and operation of wind farms

[Berry Burn- Scotland](#)

Implementer: Statkraft

Phase: Planning/construction

Good practice: Establishment of a community liaison

Description: Statkraft engaged with local communities from the early stages of project development. They held initial joint meetings with local actors to introduce the project and gather initial feedback, to ensure that residents and environmental NGOs were in line with the plan. A key component of the approach adopted was the establishment of a community liaison who would be present at all stages of the project, including the EIA process, and would represent the community and facilitate communication and cooperation between the local community, public administration and the wind farm developer.

Effectiveness: According to the feedback gathered by the online platform designed specifically for the project, as well as from the community liaison, the company addressed several public concerns, including concerns over the visual impact, noise pollution, and biodiversity risks. Overall, the Berry Burn Wind Farm received [positive feedback from the community](#) and local stakeholders for its approach to community engagement and its efforts to address environmental and social concerns.

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Replicability: The approach adopted at the Berry Burn case can be replicated at the Wind4Bio countries, as it can effectively address the lack of efficient cooperation and distrust between public authorities, project developers and local actors that has been often the case in Greece, Latvia and Poland., as reported by the Wind4Bio partners. In addition, implementation costs are not particularly high (especially in comparison to the overall investment costs) and do not require any regulatory modifications that could contravene with cultural values or practices.

Relevance: This approach can promote social acceptance, reduce potential conflicts and increase trust and cooperation between the involved actors, which can be highly beneficial for curtailing social opposition in countries like Greece and Poland. In addition, the approach has demonstrated its effectiveness in fostering positive relationships between relevant stakeholders and reducing the lack of adequate information sharing that is a recurring issue in Wind4Bio countries.

[Whitelee - Scotland](#)

Implementer: ScottishPower Renewables

Phase: Planning

Good practice: Joint assessment of the EIA, establishment of community advisory panels

Description: Whitelee farm is the largest on-shore project in the UK, implemented by ScottishRenewables, during several expansion stages. Throughout the planning stages of the [2012-2014 expansion](#), the East Ayrshire local Council in collaboration with project developers organised public [consultation sessions and workshops](#) with environmental NGOs and local community actors to collectively decide about the development site and its final outlook. Furthermore, local actors organised community advisory panels to be represented at the EIA session that was held together with project developers and

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policy stakeholders¹⁹. In addition, workshops were organised by local authorities offering a forum for debate between project developers and public actors.

Effectiveness: The expansion site was readjusted during the planning phase as requested by local actors and policy actors ensured (by implementing the relevant legislation) that wind turbines must be located at least 2km away from residential areas. Citizen [feedback reported](#) indicates that the outcomes produced from the consultation sessions and the community advisory panels had an exceptionally positive impact at the community, as they led to significant improvement in terms of biodiversity protection and water source quality preservation. Furthermore, preserving the cultural heritage of the region was a concern that was actively raised by citizens during the workshops and was taken into account when deciding upon the locus of the expansion.

Replicability: The Whitelee project is still ongoing²⁰, as in 2021 project developers established solar energy and green hydrogen production units, adopting the same community engagement methods. This includes public consultation sessions, workshops, deliberative sessions regarding the site selection and joint EIA discussions. Considering that in all Wind4Bio countries public acceptance of wind farms is low, partly, due to the unwillingness of policy makers and wind energy companies to effectively cooperate with civil society actors in co-designing wind energy projects, the adoption of these measures could address this issue in a constructive and participatory manner.

Relevance: Whitelee is an exemplary case of proactive collaborative wind farm design, incorporating effectively local community approaches in the final outlook of the project. The approach used by project developers and local policy makers can serve as inspiration to the Wind4Bio project partners, especially for cases where wind energy projects are located near residential areas.

¹⁹https://www.scottishpowerrenewables.com/pages/powering_communities.aspx

²⁰ https://www.scottishpowerrenewables.com/userfiles/file/WHITBESS_PV_Volume_2_-_EIA_Report.pdf

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Lessons Learned: Early local actor engagement, as implemented in Whitelee and Berry Burn established trust and helped address public concerns proactively. Furthermore, diverse stakeholder involvement and joint EIA, positively promoted enhanced inclusivity and decision-making quality. Lastly, constant participatory engagement during workshops coupled with information sharing, have shown to mitigate misinformation and have fostered community support in both cases, ultimately paving the way for smoother planning and permitting procedures for the projects.

4.2 Collective initiatives for biodiversity protection and local ecosystem preservation

Havsnäs - Sweden

Implementer: Nordisk Vindkraft

Phase: Planning

Good practice: Citizen-led committees for biodiversity problem mitigation, Code of Conduct

Description: The Havsnäs wind farm has been nominated in 2006 with the National Planning Prize, for developing a strategy of collaboration among citizens, researchers, policy makers and business stakeholders²¹. The adopted approach featured a number of good practices that were implemented primarily during the planning phase, with the most prominent being the citizen-science committees responsible for collectively designing and proposing biodiversity preservation measures²². The committees combined expert knowledge with experience and managed to effectively influence the design of the wind farm. These overall approach aimed at preserving the natural landscape, as well as the reindeer population and fishery, which intersects with local economic activity. In

²¹ <https://www.energimyndigheten.se/4aabcb/globalassets/fornybart/framjande-av-vindkraft/vindpilotprojekt/havsnas---pilotproject-report-on-cold-climate-and-high-hub-height.pdf>

²² http://www.winterwind.se/sundsvall-2014/wpcontent/uploads/17_Derrick_Alan_Winterwind_2013.pdf

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addition, a legally binding code of conduct was developed concerning all activities related to the construction and operation of wind farms. Furthermore, it was ensured that construction operations would be performed by workers who were familiar with the particularities of the local landscape to minimise the biodiversity impact²³.

Effectiveness: Following continuous deliberation with local representatives, the construction site was moved at a less biodiversity sensitive area. At a region where local communities were interconnected with the natural environment, these citizen led initiatives, supported by expert coaches and constant information flow, managed to set clear-cut rules for the protection of the reindeer and fishery population. Overall, the result was an increased social acceptance of the project, since the concerns of the local community were addressed through changes in the project design and implementation.

Replicability: The good practices implemented in the Havsnäs case can be readily transferred at the regional and local level by policy making authorities. Especially in cases where citizens are dependent upon the natural habitat for their economic activities, encouraging similar bottom-up approaches can overcome biodiversity concerns related to the development of a wind energy project.

Relevance: Considering that all Wind4Bio countries face similar concerns and social opposition over their impact on biodiversity, the discussed approach can be highly relevant for policy makers in the Wind4Bio territories. Currently, no similar practices are implemented in the project participating regions, resulting in ad hoc approaches for public involvement in biodiversity protection. As a result, the adoption of the approach could address this gap and enhance civil society collaboration with regional policy actors.

²³ <https://www.res-group.com/media/2530/havsnas-health-and-safety-guide.pdf>

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Lessons Learned: As indicated by the Havsnäs case, a bottom-up approach effectively allowed for biodiversity protection actions, encompassing local communities, environmental NGOs, policy makers and project planners. The involvement of local environmental experts and conservation organizations ensured that the project design aligned with the unique ecological needs of the area and those of its inhabitants. Secondly, by engaging with community-led initiatives, public authorities fostered a holistic understanding of the ecosystem, aiding the identification of a unique, jointly developed resource exploitation protocol that preserves the local biodiversity. Overall, bottom-up biodiversity protection initiatives can bolster project credibility and can demonstrate a genuine commitment to preserving the environment.

4.3 Awareness raising and communication strategies

Burton Wold – England

Implementer: First Renewable

Good practice: Virtual platform for interactive information exchange

Phase: Pre-application, construction, operation

Description: During the Burton Wold wind farm planning phase, the Northamptonshire implemented a communication strategy to inform the public about the upcoming project, as well as to gather views from residents and other civil society actors. The most prominent of the measures undertaken by local authorities was the establishment of a platform for local actors to ask questions, express concerns and receive detailed information from the project developers. The platform offered real-time information and news about the project, as well as the ability for all interested parties to raise questions, comments and thoughts about the design of the wind farm. In addition to the platform, the communication

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campaign involved an open day comprised of experts and project stakeholders, as well as a public opinion survey²⁴.

Effectiveness: Prior to the development of the Burton Wold farm, local residents and business stakeholders were asked if they approved of the creation of a wind farm in the area. Due to the inefficient exchange of information among civil society actors, the plans were rejected by the local community. As a result, the local government in collaboration with the project development company implemented measures for the effective cooperation with the local community. The communication exchange platform, designed as part of the raise-awareness campaign, was crucial for the implementation of the project. The platform established a constant flow of information that shaped the project outlook.

Replication: The approach adopted in the Burton Wold case does not pose particular challenges for further replication, although it would require a dedicated set of experts and project managers with the necessary competences to facilitate similar communication channels. Given that many territorial authorities do not have the resources or the expertise to implement such measures, it would be meaningful to engage central government authorities in the process.

Relevance: Lack of information sharing is among the primary reasons why wind energy projects are opposed by civil society actors in Europe, including the Wind4Bio countries²⁵, hence this case is particularly relevant for the project. The raise awareness practices, and particularly the virtual platform, utilised in this case could be replicated by policy makers and project developers in Greece, Latvia and Poland, given that the quality of information provided at citizens, NGOs and relevant stakeholders by wind energy companies and public authorities are often scattered and misleading²⁶.

²⁴ <https://www.kettering.gov.uk/planningApplication/50541>

²⁵ <https://sciendocom/article/10.2478/rtulect-2021-0095>

²⁶ <https://www.sciencedirect.com/science/article/pii/S0048969720380025>

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Northern Jutland – Denmark

Implementer: Unknown

Phase: Pre-application and construction

Good practice: Use of interactive visualization tools

Description: An elaborate raise awareness and communication strategy was implemented by the Jutland municipality utilizing local media channels, interactive visualization tools, such as maps and virtual tours, to help civil society actors understand the visual impact and the spatial layout of the wind farm. Furthermore, Jutland public administrative agencies conducted targeted outreach initiatives, including door-to-door visits, community events and one-on-one meetings, to directly engage with residents²⁷.

Effectiveness: The implementation of visual tools as an integral part of the communication strategy had a significant impact on public opinion, resulting in reduction in public concerns and a wide acceptance of the project among public actors²⁸. Additionally, public actor engagement led to the relocation of the project to an alternative site, ensuring the minimisation of the effects on biodiversity.

Replicability: Measures implemented by the Jutland municipality during the construction of the project have been replicated in future project expansions, as well as in other cases across Denmark²⁹. Given the success of the measures in both disseminating crucial for the project information, effectively addressing social distrust towards the project, these practices could be transferred at the Wind4Bio countries. where lack of efficient information significantly affects public trust.

Relevance: The digital visualisation tools designed by territorial policy actors in the Northern Jutland case are highly relevant to the Wind4bio project, as they

²⁷ <https://www.sciencedirect.com/science/article/abs/pii/S0306261905000565>

²⁸ <https://academic.oup.com/book/44441/chapter/376662269>

²⁹ Poulsen, A.H., O. Raaschou-Nielsen, A. Peña, A.N. Hahmann, R. Bastrup Nordsborg, M. Ketznel et al. 2019. 'Impact of long-term exposure to wind turbine noise on redemption of sleep medication and antidepressants: A nationwide cohort study'

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prove that adequate and inclusive information sharing, especially at early stages of the project. In addition, virtual tools can stimulate debate for the mitigation of issues related to visual impact, noise and environmental effects. Hence, considering that the Wind4Bio countries face difficulties with the efficient flow in of information, digital visualisation tools can address this gap and positively affect public acceptance of wind farms.

Lessons Learned: The Northern Jutland and Burton Wold cases indicate that the implementation of information dissemination tools and practices, can alter the public opinion on wind energy projects. Firstly, the utilisation of multiple communication channels, including local media and online platforms, maximized outreach to diverse audiences among the local communities. Secondly, by creating educational materials in easily understandable language, provided the public with accurate information about the project's benefits and potential impacts. Thirdly, regular workshops, site visits, open days, door-to-door visits and public surveys can increase transparency and address public concerns. Lastly, incorporating feedback mechanisms into communication strategies allows for continuous improvement, promoting informed decision-making and positive community relationships.

4.4 Mechanisms and fora for local community consultations and consensus building

Abruzzo - Italy

Implementer: Alto Vastese

Phase: Planning and implementation

Good practice: Public meetings, public consultations, formal representation channels, public hearings

Description: Starting already from the planning phase, the Abruzzo regional authorities enforced measures to increase public opinion representation and visibility in the final outlook of the project. Practices included formal and informal

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channels of deliberation, where citizens raised issues of acoustic and visual impact. The formal meetings conducted between local residents and project developers were meant to produce legally binding obligations for the company, in contrast to the consultation and hearing sessions, that were designed as deliberative fora³⁰.

Effectiveness: The participation of public actors led to the installation of smaller turbines, contrary to the original plans, reducing both the visual and acoustic impact in the region. Furthermore, citizen participation had an impact on the density of the turbines, reducing the total number of turbines installed. Lastly, local demands for infrastructure improvements were accepted by the project developers³¹. Overall, citizens and civil society actors embraced the project, as indicated by the populated public meetings and consultation sessions, as they were able to adapt the wind farm to the local needs and utilise its benefits for the local community.

Replicability: In similar cases where win energy projects contravene the needs of local communities, participatory measures such as those applied by the Abruzzo regional authorities are highly recommended. Their transferability would not demand an excessive amount of resources, however project developers would have to be legally committed to consider and apply popular demands in the outlook of the project.

Relevance: Wind projects come with considerable adverse effects in biodiversity and quality of life for local communities surround the installation sites. In the Wind4Bio countries many projects have been blocked by civil society actors and changes in the regulatory framework. The case of Poland is particularly important, given the latest legislative developments that largely restrict wind farm development in residential areas. However, the establishment of policy fora that

³⁰ <https://www.mdpi.com/2071-1050/12/9/3562>

³¹ <https://aer.eu/wind-in-their-sails-a-best-practice-from-regione-abruzzo/>

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enhance deliberation and inclusiveness of public actors can transform wind farms into investments that benefit rather than harm social communities.

Brandenburg - Germany

Implementer: unknown

Phase: planning

Good practice: Formal/informal dialogue channels, public participation in the permission process

Description: To gain public approval for the development of the wind farm, the Oderland-Spree regional unit, adopted participatory measures, engaging citizens and local stakeholders in the planning discussions of the project. Main area of public concern was the project site, along with the distribution of financial benefits to the community. Regional public authorities took measures to increase public opinion visibility through formal and informal public meetings, consultation sessions and formal representation of local actors in the pre-application planning phase. These processes led to over 2000 objections and subsequent drafts, in order for the project to receive permit³². The appeal process was binding and had to be revisited after each successive round of comment submission by public actors. This ensured the incorporation the concerns of civil society in the project designed and ensured that public demands were met by policy makers and project developers.

Effectiveness: Through the dialogue and deliberation processes, local actors were guaranteed that the project would be strictly limited within the zoning areas that were collectively identified. Furthermore, citizens and local business stakeholders ensured that the community would benefit financially from the project, securing a share of the wind farm, as well as tax reduction and reduced energy costs for the locals³³.

³²<https://www.sciencedirect.com/science/article/abs/pii/S0301421508003121>

³³ https://decarbenergy.net/wp-content/uploads/2021/08/Germany-Working-paper.-brandenburg_report_final_en.pdf

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Replicability: The processes and practices have high replicability potential. Similar practices were applied by local and regional authorities in other parts of Germany such as Saxony, Thuringia and Schleswig-Holstein. However, due to the particularities in the various administrative schemes, it is expected that alterations and adaptations will be necessary for their effective performance.

Relevance: The absence of channels for effective involvement in the wind farm design and operation of local actors is a major criticism against policy makers in Europe, including the project participating countries. Making obligatory for project developers to take public opinion into account, as it is expressed in public hearings, debates and consultation sessions, can enhance public acceptance of wind farms, due to the increased incorporation of public concerns and needs in the project.

Lessons Learned: As described in the Abruzzo and Brandenburg cases, tools and practices such as, public hearings, public consultations/meetings in the decision making fora, as well as the establishment of participatory communication channels fosters open dialogue and builds trust among project developers, policy makers and local communities. Furthermore, both cases demonstrate that inclusive deliberative practices enable meaningful community participation in project decisions, incorporating different point of views in the project design. Lastly, the involvement of local actors led to more informed and collaborative solutions, and effectively addressed the proposed concerns.

4.5 Joint financial participation

[Westmill - England](#)

Implementer: Westmill Wind Farm Cooperative Society Limited

Phase: Planning, construction, operation

Good practice: Community owning scheme, cooperative establishment, bottom-up inclusive decision making procedures, financial benefit sharing among community actors

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Description: The Westmill farm has adopted an alternative ownership scheme (Westmill Wind Farm Cooperative), which was developed as a community-led initiative, with the aim of allowing local residents and investors to become co-owners of the wind farm. In collaboration with local authorities that offered technical assistance, as well as the required financial incentives to the community, the project allowed residents, businesses and organizations in the local area to invest in the wind farm. This provided an opportunity for community members to contribute financially to the project and in return share in its profits³⁴. Operationally, the Cooperative was formed to manage the wind farm's operations and ensure community involvement in decision-making processes. Members receive financial returns based on the wind farm's performance³⁵.

Effectiveness: The cooperative model employed by Westmill Wind Farm has proven to be highly effective in fostering community engagement and ownership, as the involvement of local residents and stakeholders in decision-making and financial investment has generated strong community support and a sense of shared responsibility.

Replicability: Measures adopted in the Westmill Wind Farm project are highly transferable and can serve as a valuable model for other community-based renewable energy initiatives, yet it is essential to consider the unique characteristics and context of the area before replicating the practices. A possible challenge related to the effectiveness of this approach would be persuading project developers to omit the full financial return of the investment by involving local community actors as shareholders.

Relevance: Implementing financial and social benefit-sharing mechanisms, such as community funds or job creation opportunities ensures that the local community directly benefits from the renewable energy development and

³⁴ <https://greenallianceblog.org.uk/2019/02/11/onshore-wind-is-cheap-and-popular-the-government-needs-to-catch-up/>

³⁵ <https://www.westmillwind.coop/>

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enhances community acceptance of wind farms. Hence, the Westmill case falls within the outlined indicators for inclusive civil society participation in the development of wind projects outlined in this report.

[Pen Y Cymoedd - Wales](#)

Implementer: Vattenfall

Phase: Planning

Good practice: Establishment of a community fund

Description: The [Pen Y Cymoedd Wind Farm Community Fund](#), is designed to support various projects and activities that contribute to the sustainable development and well-being of the local communities impacted by the wind farm. Through the community fund (which is closely managed with local representatives and the municipal administrative agencies), a number of projects have been developed to support community needs including: local infrastructure creation, environmental restoration and biodiversity protection, energy provision to local buildings, as well as local business support³⁶.

Effectiveness: The establishment of the community fund associated with the Pen Y Cymoedd Wind Farm has been highly effective in fostering positive community engagement and support for the project. The fund's allocation to various local projects and initiatives has directly contributed to the sustainable development and well-being of the communities surrounding the wind farm, showcasing the tangible benefits of community-owned renewable energy projects. As reported at the [community fund website](#) the financial returns of the project have triggered positive social change for local residents in a number of ways, including art, employment, education and environmental protection.

Replicability: Measures, tools and practices implemented in the Pen Y Cymoedd Wind Farm's Community Benefit Fund are potentially replicable in other

³⁶ <https://penycymoeddcic.cymru/wp-content/uploads/2019/02/2-Year-Impact-Report-English.pdf>

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community-based renewable energy projects. The cooperative ownership model and the allocation of revenue for local projects can enhance community engagement, support and accelerate socio-economic development. However, potential challenges for adopting these measures in other projects may include obtaining initial community buy-in, navigating complex stakeholder relationships and ensuring that the fund's distribution aligns with the specific needs and aspirations of each unique community.

Relevance: The Pen Y Cymoedd case is fully aligned with the objectives of the Wind4Bio project, in fostering community support for wind energy projects in a participatory and beneficial manner for the local communities. Such practices increase public acceptance of wind farms and have an aggregate positive impact for the community, however potential challenges may arise due to varying regulatory frameworks, cultural diversity and the funding requirements of each Wind4Bio region.

Lessons Learned: In the Westmill and Pen Y Cymmoed cases, mutually beneficial financial sharing among community actors promoted social cohesion and reduced potential conflicts between the affected parties. In addition, the community fund of the Pen Y Cymmoed case, had a significantly positive impact on the affected community through job creation, education programs and local infrastructure support. Also, investing in local infrastructure development, like roads or schools, generated direct benefits for the community, further securing project acceptance. Lastly, the project ownership scheme of the Westmill case has considerably enhanced community acceptance of the project due to the direct financial benefits that it provides.

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5 Policy recommendations

This section provides a set of policy recommendations aimed at facilitating participatory practices to enhance social acceptance of wind farms. These recommendations draw from the case studies described in the previous section, the input provided by the Wind4Bio partners and complementary desk research.

1. Emphasise early civil society engagement in the planning and permitting procedures

In all Wind4Bio countries, timely provision of information to residents and various public actors is limited during the planning and permitting process, stemming from the unwillingness of project developers and companies to share crucial information regarding the outlook of project (particularly in Greece and Latvia), in fear of public opposition against it. However, as shown by the identified good practices cases, active civil society actor involvement in planning and permitting procedures, reinforced by effective communication channels, can improve the public opinion of wind farms, as public actors are given the opportunity to influence the project to address the local community needs. Hence, public authorities in Greece, Latvia and Poland (although Poland currently has a very restrictive legislative framework³⁷ for the installation of wind turbines) should ensure that civil society actors are effectively involved in the preparatory stages of a project.

2. Develop streamlined and transparent permitting procedures

Ministries of Environment in the Wind4Bio countries, backed by regional authorities should implement a streamlined and transparent permitting process, allowing adequate involvement channels for public actor engagement. This will also require a more effective collaboration between the various institutional

³⁷ <https://www.euractiv.com/section/energy-environment/news/polands-controversial-wind-energy-law-voted-on-this-week/>

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actors engaged in the processes for the development of wind farms. Greece, for instance, is a country where transparency is often disregarded during the permitting procedures. Due to the particularities of the Greek landscape (rich in NATURA 2000 areas), as well as the commitment of the Greek authorities to boost green energy transition, permitting procedures are often implemented in a “fast track” manner, leaving inadequate time for debate and consultation with the local public actors³⁸. Furthermore, in all Wind4Bio countries civil society actors have a limited or non-binding role in the planning phase of new wind projects, hence public authorities should more effectively engage public actors in the planning and permitting procedures.

3. Promote collaboration schemes among local communities to support biodiversity and local ecosystems

According to the input provided by the Wind4Bio partners, civil society actors often express their disapproval against wind park development, due to concerns about adverse environmental effects. Based on the analysis of the identified good practices (citizen committees, formal representation in EIA procedures) it is advised that public authorities and project developers promote the formation of initiatives for the engagement of public actors, interested in the mitigation of biodiversity concerns. Actions to support such initiatives would include: the identification of relevant stakeholders and their engagement in the initiatives, provision of financial incentives to support bottom-up engagement schemes, promote public-private partnerships that integrate professional experience and knowledge of the local needs, and ensuring a level playing field in terms of access to funding mechanisms vis a vis larger projects.

³⁸ <https://www.diva-portal.org/smash/get/diva2:1674524/FULLTEXT01.pdf>

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4. Appoint community liaison officers for all stages of a project development

To enhance social acceptance and public perception of wind farms, build knowledge within the community and enhance the incorporation of public demands in the final outlook of the project, it is recommended to promote the establishment of community liaison officers. In cases, such as the project participating countries, where wind farms often face public opposition and public actors feel excluded from decision making processes, this measure could bridge the gap between the local community and project developers.

5. Promote the adoption of digital tools for interactive civil society engagement and efficient information distribution

Complementary to traditional meetings and consultation sessions, it is suggested for Wind4Bio partners to implement a policy that actively promotes the adoption of digital tools for interactive civil society engagement and efficient information distribution. Such measures can include discussion forums, virtual tours, webinars, real-time communication channels and AI-driven tools to tailor information distribution to the specific interests and needs of different civil society groups, ensuring a broader outreach. Policy makers should collaborate with relevant stakeholders (technology experts, civil society organizations and digital literacy advocates) to ensure the effective design, rollout and ongoing management of these digital initiatives. Although these tools might not be fully accessible for older segments of the population in the Wind4Bio countries, they can effectively capture citizens with a low/high technological proficiency and encouraging their active involvement in policy-making processes regarding wind farm development.

6. Conduct raise-awareness campaigns

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To effectively inform the public about the pros and cons of the development of wind energy projects in their respective areas, public authorities in the Wind4Bio countries should invest in the transparent and coherent information dissemination, through raise-awareness campaigns. The campaigns could include education programmes, expert-led info sessions and (social) media campaigns, accompanied by ample dissemination material. Currently, civil society actors in the project participating countries are not receiving adequate information pertaining to wind farm development³⁹. Hence, the Not In My Backyard (NIMBY) syndrome is widespread among citizens, environmental NGOs and interest groups. Adequate and valid information flow can build trust among public actors and minimise social reaction against wind farms.

7. Establish streamlined mediation and conflict resolution mechanisms

Although in all project participating countries, mediation and conflict resolution mechanisms are in place, in Greece and Latvia the processes are not streamlined, indicating a case-by-case variation. Central government public authorities are advised to implement an integrated policy framework for inclusive civil society engagement. The policy framework should consist of conflict resolution and mediation mechanisms, operating in full transparency and openness. In addition, the processes must be deliberative, expert-led and frequent. The same deliberative and inclusive qualities must be followed at the EIA processes as well. Such measures can include frequent consultation sessions with public actors, public hearings, public opinion surveys, and formal representation of public actors in all decision-making processes. These measures could overcome public mistrust against wind farms in all Wind4Bio countries, where support for wind energy projects are often faced with public mistrust.

8. Implement revenue-sharing mechanisms for wind farm projects

³⁹ <https://www.mdpi.com/2071-1050/12/9/3562>

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As reported by the Wind4Bio partners, the reluctance of wind energy companies to distribute a share of the financial revenues of wind farms as a compensation to the community, is a major inhibitor to social acceptance of such projects. Past experience though, shows that revenue sharing mechanisms can enhance social acceptance of wind farms. Such mechanisms can be promoted by public authorities in the Wind4Bio countries in a number of ways. First of all, policy makers have to initiate procedures for agreement and contract negotiations between project developers and local actors. Secondly, they can legally stipulate specific benefit sharing mechanisms as pre-condition for a wind farm to be considered for approval.

9. Encourage the adoption of community ownership models

Alternative ownership models, with the most prominent being the community ownership of wind energy projects, are widely implemented by governments to increase citizens' involvement in the energy transition and accelerate the adoption of RES. These models enable local residents and communities to invest in and own a portion of the wind energy project. For the adoption of community ownership practices, the energy department, environment and finance central government agencies backed by local and provincial authorities need to establish revised policy frameworks pertaining to community owned schemes. Furthermore, communities should be offered financial incentives for the implementation of such schemes and provided with support from local public authorities to address information, organisational and other gaps these initiatives face.

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6 Conclusion

In conclusion, this deliverable has provided a comprehensive exploration of good practices for enhancing civil society engagement and involvement in wind energy projects, with a focus on participatory planning and permitting procedures models, collective initiatives for biodiversity protection and local ecosystem preservation, awareness raising and communication strategies, mechanisms and fora for local community consultations and consensus building, and joint financial planning and benefit sharing. By examining successful case studies and expert recommendations, this study has identified key factors that contribute to successful civil society engagement and offers important policy recommendations to policy-makers and project planners.

In particular, the policy recommendations presented in this deliverable provide guidance to policy-makers and project planners in implementing these good practices. Emphasizing the importance of participatory approaches, clear guidelines for community engagement, awareness-raising initiatives, and regulatory frameworks that promote community participation and benefit sharing, these recommendations provide an inclusive and bottom-up approach to the development of wind energy projects.