Policy Brief

February 2026

Local Action, Global Impact: Scaling Nature-based Solutions Through Landowners

Land4Climate

Highlights

- **Nature-based Solutions (NbS) are essential** for reducing climate risks, restoring ecosystems and strengthening local resilience. Their implementation at an European Union (EU) level depends on access to privately owned land and cooperation with landowners.
- **Local governments and local planning authorities** play a decisive role in enabling cooperation between landowners and public authorities, translating Europe's climate and biodiversity goals into concrete action on the ground.
- **LAND4CLIMATE*** regions revealed **several systemic barriers: (1)** unclear or insufficient compensation; **(2)** fragile trust and limited awareness; and **(3)** complex contracts and permitting.
- **Policy recommendations for local governments include and planning authorities: (1)** build long-term trust via credible intermediaries, peer-to-peer exchange and consistent engagement; **(2)** standardise contracts and simplify permitting; **(3)** offer clear, predictable incentives combining municipal, regional, and EU funds to landowners; **(4)** provide early technical guidance and demonstration sites, and reinforce local coordination and advisory capacity.

Context: How local governments can accelerate Nature-based Solutions on private land

NbS have proven effective in reducing flood and drought risks, cooling microclimates, and creating long-term environmental and economic value. Yet, the decisive fact or for deploying NbS at scale is **land: its availability, ownership, and management.** Many nature-based measures require significant space, such as **floodplain reconnection, wetland restoration, forest or agroforestry corridors, or slope restoration**[1]**.** Because this land is largely privately owned, NbS cannot advance without the active involvement of farmers, foresters, householders, and private institution[2].

Local governments and planning authorities like national parks and river basin administrations play **a key role in facilitating NbS implementation on private land.** Through spatial planning, incentives, advisory work, and direct negotiation, local governments and local planning authorities often act as **brokers** connecting landowners, investors, and regulatory authorities, translating Europe's climate resilience ambitions into **concrete, place-based action on private land.**

The urgency to mobilise private land aligns with major **EU initiatives. The EU Strategy on Adaptation to Climate Change**[3] calls for integrating resilience across all landscapes, including privately managed ones. The **EU Biodiversity Strategy for 2030**[4] and the **Nature Restoration Regulation**[5] place strong emphasis on restoring degraded ecosystems, many of which lie outside protected areas.

[1] Hartmann, T., Slavíková, L., & McCarthy, S. (Eds.). (2019). Nature-Based Flood Risk Management on Private Land. Springer. https://doi.org/10.1007/978-3-030-23842-1_4

[2] Hălbac-Cotoară-Zamfir, R., Ferreira, C. S. S., Kalantari, Z., Giorgi, S., Hartmann, T., Schulze, J., Krištofová, L., Aldescu, C., Ranzoni, M., & Burkoň, R. (2025). NBS strategy and implementation plans for front-running regions (LAND4CLIMATE Deliverable 4.1). LAND4CLIMATE. Retrieved from https://land4climate.eu/documents/deliverable-41-nbs-strategy-and-implementation-plans-front-running-regions Retrieved from https://land4climate.eu/documents/deliverable-41-nbs-strategy-and-implementation-plans-front-running-regions

[3] European Commission. (2021, February 24). Forging a climate-resilient Europe — The new EU Strategy on Adaptation to Climate Change (COM(2021) 82 final). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:82:FIN

[4] European Commission. (2020). EU Biodiversity Strategy for 2030: Bringing nature back to our lives (COM(2020) 380 final). https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en

[5] European Parliament & Council of the European Union. (2024). Nature Restoration Regulation.

*Methodological Note

LAND4CLIMATE is a four-year Horizon Europe Innovation Action running from 1 September 2023 to 31 August 2027, funded under the call "HORIZON-MISS-2022-CLIMA-01-06 – Testing and demonstrating transformative solutions on climate resilience, mainstreaming nature-based solutions in the systemic transformation". The project aims to increase the resilience of landscapes and urban settlements in the continental biogeographical area and beyond by accelerating the large-scale implementation of nature-based solutions (NBS), an approach that is still at an early stage of adoption. LAND4CLIMATE is part of the **EU Mission on Adaptation to Climate Change** and of **NBS4EU**, a cluster of seven sister projects funded under the same Horizon Europe topic.

The findings in this brief are based on three cycles of **reflexive monitoring**[6] (self-assessment questionnaires) completed by LAND4CLIMATE regional teams between 2023 and 2025 and the peer-to-peer events happening in the all-partner meetings in Austria, Czech Republic, Romania, and Germany. The experience arises from an ongoing climate risks analysis, NbS planning, negotiations with landowners and early implementation in six diverse European regions within the LAND4CLIMATE project. Findings also emerged from stakeholder's workshops and consultations with municipalities, private landowners, NGOs, and technical experts.

Despite high EU-level ambition, **local governments and planning authorities currently lack consistent governance tools, incentives, and administrative procedures** to collaborate effectively with private landowners[7]. The question arises: **How can local governments and local planning authorities effectively negotiate, design, and implement NbS on private land under current economic, social, and administrative constraints?**

Several gaps limit implementation on the ground:

- **Limited trust-building mechanisms:** low familiarity with NbS, limited trust, fear of land-use restrictions, and engagement processes that depend on individual staff from the municipalities rather than durable structures.
- **Administrative misalignment:** lengthy permitting processes, multi-agency approvals, and the absence of standard contracts.
- **Insufficient incentives:** unclear compensation, limited funding for maintenance, and perceived trade-offs between short-term income and long-term ecological benefits.
- **Limited technical guidance and capacity gap:** existing governance frameworks lack technical guidance for facilitating NbS implementation on private land and rarely define how local authorities should work with private landowners on climate and biodiversity measures.

Across Front Runner Regions of **LAND4CLIMATE** in Austria, Czechia, Germany, Romania, Slovakia, and Italy8, NbS initiatives on private land frequently stalled not because of technical limitations, but because of conducive economic, social, and administrative barriers (detailed evidence in the section Evidence and analysis).

[6] Land4Climate Project. (2023–2025). Reflexive Monitoring Documentation (Quarterly reports based on the ConnectingNature Reflexive Monitoring for NbS). ConnectingNature Reflexive Monitoring for NbS).

[7] Hălbac-Cotoară-Zamfir, R., Kalantari, Z., Ferreira, C. S. S., Giorgi, S., Gerlach, M. D., & Roca Vallejo, R. (2025). Capacity needs assessment report and training modules for front-running regions (LAND4CLIMATE Deliverable 4.10). LAND4CLIMATE.
Retrieved from https://land4climate.eu/documents/deliverable-410-capacity-needs-assessment-report-and-training-modules-front-running

[8] Front Runner Regions of LAND4CLIMATE (County of Euskirchen (DE); Lafnitz Catchment (AT); Bohemian Switzerland National Park & Krásná Lípa (CZ); Emilia-Romagna Region (IT); Upper Timiș Catchment (RO); Ronava River Catchment (SK)). (2023–2025).

Policy recommendations for local governments to deliver NbS on private land

Build and support trusted intermediaries

Local experience shows that ***Who* speaks to landowners matters as much as *What* is proposed**; cooperation accelerated wherever trusted intermediaries were active.

- **Work through existing, trusted intermediaries depending on the field (land-use, urban planning, river basins, etc.)** such as chambers of agriculture, farmer associations, NGOs, biosphere/nature parks and water councils (e.g., of trusted intermediaries in LAND4CLIMATE: HUMUS+ in Austria, Agency for the Support of Regional Development Kosice in Slovakia, the Authority for the management of Parks and Biodiversity – Delta del Po in Italy, and the Bohemian Switzerland National Park in the Czech Republic).
- **Formally recognise and fund trusted intermediaries** through long-term service contracts, framework agreements, or delegated advisory roles, enabling them to maintain continuous contact with landowners, translate technical concepts into everyday language, and mediate expectations.
- **Use peer-to-peer models.** Invite early-adopter farmers, foresters or homeowners to share their experience; landowners respond more positively to other landowners than to external experts.

Standardise contracts and simplify permitting

Across regions, landowners were discouraged by **unclear contracts, complex permits and slow multi-agency procedures.**

- **Develop standard local contract templates** for NbS on private land, covering land use rights and duration, maintenance responsibilities, compensation and cost-sharing, liability and access (e.g., for monitoring).
- **Set up "one-stop shop" coordination for permits** within the municipality or region, where landowners interact with a single contact point that manages internal coordination with water, environment and planning departments.
- **Engage legal advisors early** to ensure that public funding for works on private land, and cooperation with land funds or state agencies, is explicitly allowed and clearly explained.
- **Align timelines with farming and construction seasons**, so that approvals arrive within the narrow implementation windows available to landowners.

Make NbS economically viable for landowners

Negotiations across LAND4CLIMATE showed that NbS uptake depends less on stated environmental ambition and more on whether economic constraints are addressed. Adoption increased when implementation costs, risks and opportunity losses were explicitly acknowledged and partly mitigated.

- **Bundle funding sources into clear local "offers"** and present them as a single, easy-to-understand package. (e.g., combination of municipal, regional and EU funds such as CAP[9] or cohesion programmes).
- **Compensate opportunity costs** where NbS reduce short-term income (e.g., temporary yield reductions or land removed from intensive use), with maintenance costs made explicit and shareable across public budgets, carbon or biodiversity schemes, and private beneficiaries.
- **Encourage local co-financing** by defining and quantifying the co-benefits of NbS through environmental and ecological indicators and compensation mechanisms (e.g., water utilities supporting upstream retention, businesses supporting flood protection).
- **Reward outcomes rather than only practices,** where monitoring requirements can be kept proportionate, relying on low-cost, locally adaptable indicators (e.g. soil health, water retention, runoff reduction or biodiversity proxies) rather than comprehensive monitoring frameworks.

Provide early technical guidance and visible examples

Interest rose sharply once landowners saw real examples or received concrete technical support.

- **Create local demonstration sites** in rural and peri-urban areas to show how hedgerows, small retention basins, wetlands, agroforestry or dune systems work in practice.
- **Offer tailored technical advice** through municipal staff, regional advisory services or partnerships with universities and technical institutes, helping landowners adapt NbS to local soils, slopes and existing infrastructure.
- **Use visual tools and site visits** (maps, simple diagrams, before/after photos) to make NbS understandable, especially for those unfamiliar with the concepts.
- **Allow "start small" pilots** on limited parts of a farm or property so landowners can test measures before committing larger areas.

[9] https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance_en

Evidence and analysis

The evidence and analysis are grounded in three rounds of reflexive monitoring, Peer-to-Peer events and stakeholder engagement carried out in the six **LAND4CLIMATE** Front Runner Regions (Austria, Czech Republic, Germany, Italy, Romania, Slovakia). Regional teams regularly reported on stakeholder engagement, negotiations with landowners, NbS planning and implementation, and lessons learned.

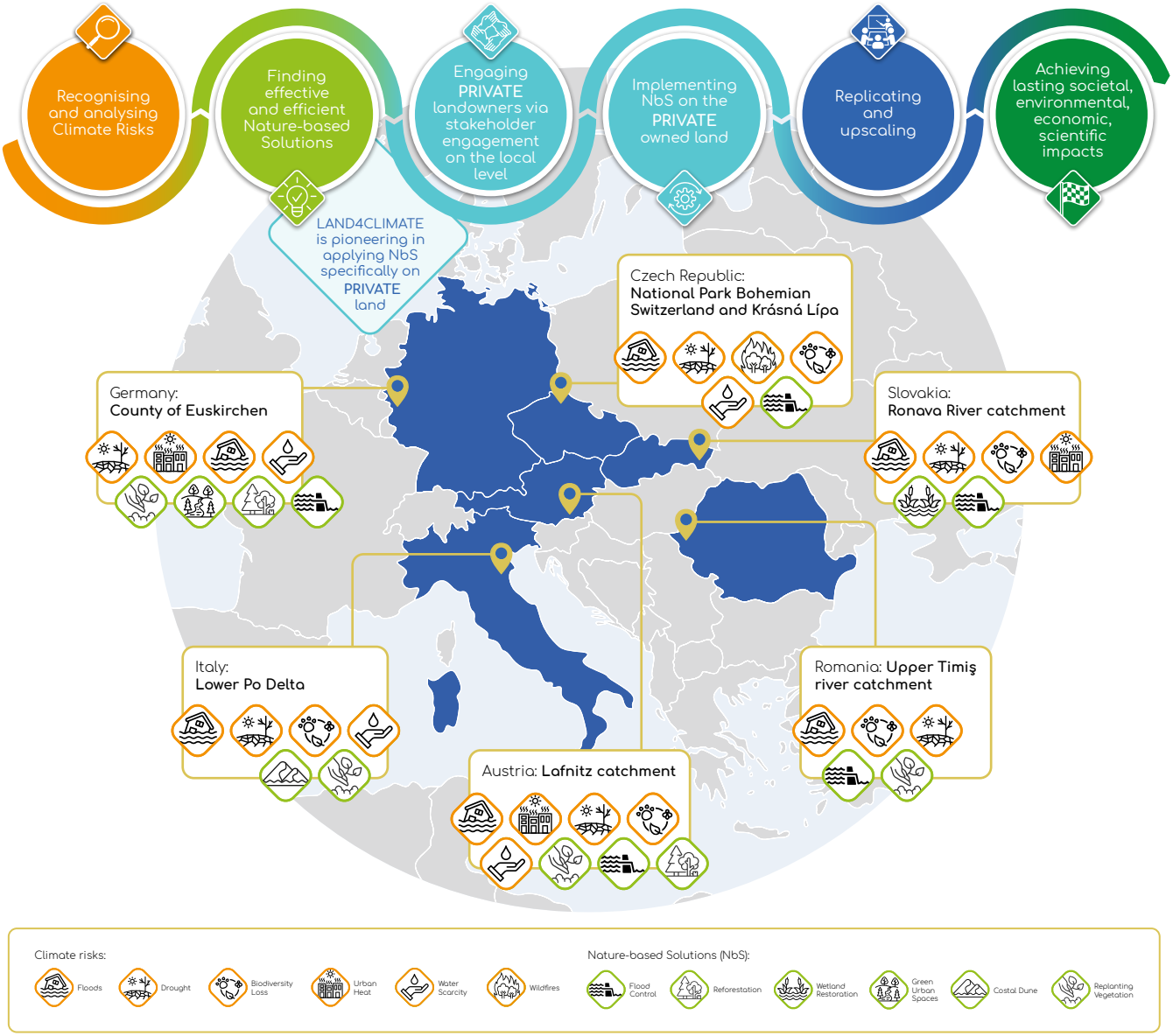

Figure 1. The LAND4CLIMATE Front Runner Regions and the project process for enhancing climate resilience on private land through Nature-based Solutions. Source: LAND4CLIMATE website.

The following examples highlight emerging success factors, challenges overcome, and innovation in governance and financing.

Trust, intermediaries and engagement

In **Austria**, outreach by project staff alone had limited effects. Engagement improved significantly once trusted intermediaries like *HUMUS+* and the Chamber of Agriculture used their existing networks to explain measures and accompany farmers. In **Slovakia** (Košice and Ronava), landowners' interest fluctuated due to administrative complexity and fear of restrictions. Intensive one-on-one communication, workshops and clear explanations of benefits gradually strengthened trust.

Legal and administrative complexity

The NbS dune agreement was delayed in **Italy** (Cesenatico/Emilia-Romagna) due to inheritance concerns, and confusion over public works on private land. These factors demonstrate how NbS occupy a grey area between public benefit and private property. In the **Czech Republic** (Bohemian Switzerland), a landowner temporarily halted permitting because expectations about compensation and land-use conditions were not aligned, forcing the team to reconsider locations and negotiate new terms.

Economic incentives and opportunity costs

In Romania (Upper Timiș), engagement with private landowners remained low as long as there was no transparent, credible offer or selection procedure; participation only grew once structured calls and clearer conditions were developed. In **Germany** (County of Euskirchen), engagement with farmers improved when NbS planning explicitly addressed opportunity costs: the introduction of Miscanthus as an alternative crop helped demonstrate that flood protection measures could remain economically viable while reducing climate risk, thereby supporting landowner participation.

Technical guidance and demonstration

In **Slovakia**, detailed technical designs for rain gardens, infiltration strips, wetlands and retention structures were co-developed with landowners, requiring field visits and iterative adjustments to local topography, soils and existing infrastructure. In **Czechia** (Krásná Lípa), even a relatively simple measure such as meandering a pond outflow had to be delayed due to amphibian migration, showing the need for time flexibility and ecological planning.

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LAND4CLIMATE Partners

The LAND4CLIMATE consortium brings together five universities, six authorities at local, regional, and state levels, as well as non-governmental organisations, representatives from national parks, and stakeholders in community development and urban planning.

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