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Good Practice in Policy Integration of Nature-Based Solutions:

Natuurkracht – An innovative initiative for tackling flood risk in the South Limburg Landscape in the Netherlands

Policy summary

Natuurkracht is an initiative that supports an ecosystem-based approach to flood management and mitigation in the Limburg region of the Netherlands with funding, education, and public engagement, launched in 2022 by five nature organisations and partnering with businesses and local authorities. It helps revise the regional approach to flood prevention and water management to an NbS approach.

Key messages on good practices for policy integration of NbS

- **Bottom-up approach driving spatial planning innovation:** Natuurkracht shows how locally driven initiatives—rooted in community involvement and practical action—can effectively influence regional spatial planning and policy design.
- **Shifting institutional mindsets:** The initiative has contributed to a change in mentality in the water board and the provincial authorities, fostering greater openness to nature-based, collaborative approaches to water management.
- **Building strong local support and enthusiasm:** Through hands-on activities, accessible resources, and clear communication, Natuurkracht has successfully generated widespread public interest and ownership, which is essential for the long-term success and replication of NbS initiatives.

Images

Kinderdijk, The Netherlands (J M Fisher, Unsplash)

Type of policy instrument

Location and Scale

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PLANNING INSTRUMENT - regional initiative that has influenced regional strategy INFORMATION / EDUCATION INSTRUMENT - stakeholder and public participation, information, advice provision, bottom-up civil society initiatives	Regional and river basin scale - South Limburg province in the Netherlands, in the Geul and Gulp valleys (with collaborations with neighbouring regions in Belgium and Germany within the river basin). The Geul river (total length around 60 km) originates in the Wallonia region of Belgium (where it is known as the Gueule) and flows through Limburg province in the Netherlands until it flows into the Meuse River near Bunde. One of its larger tributaries - the Selzerbeek – rises in Germany (Aachen in the region of North Rhine-Westphalia), while the Eyserbeek and Gulp rise within Limburg province.

Description of policy

Natuurkracht is an initiative that supports an ecosystem-based approach to flood management and mitigation in the Limburg region of the Netherlands with funding, education, and public engagement. Its objective is to restore the landscape in the Gulp and Geul valleys so that the landscape acts as a natural sponge, preventing both flooding and drought [1].

The initiative was launched in 2022 by five nature organisations (the Limburg Nature and Environment Federation, Limburgs Landschap, ARK Rewilding Nederland, Natuurmonumenten, and WWF Netherlands) who jointly applied for a national grant to launch the fund [2]. It is also now a partnership with 6 municipalities and 11 businesses and NGOs including the Limburg drinking water supplier [1].

The Limburg Water Safety and Spatial Planning programme (known or WRL) was set up in 2022 [3]. This programme is an association between the Limburg municipalities, the Limburg Water Board, the Province of Limburg, and the national government [4]. After the end of the initial grant, Natuurkracht is now setting up a fund through the WRL partnership.

The Natuurkracht initiative has [1]:

- funded projects that incorporate “natural solutions” to issues of flooding - the funding scheme is directed at both large and small-scale flood prevention projects, from unsealing individual gardens and installing rain barrels, to creating spaces for forest development and restoring free-flowing streams. Around 250 ha of land have been restored for flood retention and nature.
- produced an online platform, Natuurkracht.org, with a comprehensive resource base with free online training for nature-based solutions development, educational resources about flooding and natural prevention methods, case studies for solutions on an individual level, news updates, and volunteer, ambassador, and other community engagement opportunities.
- published reports with information about flooding, information on soil and water in the Netherlands, water systems analysis, and examples of successful green solutions for water management. The initiative also addresses other aspects of NbS, such as the positive effects on physical and mental health.

NetworkNature theme(s	Types of NbS
• Climate Adaptation, Mitigation and Resilience • Biodiversity Enhancement and Ecosystem Restoration	• Natural water retention measures • Stream & river restoration & recontouring • Buffer strips & riverbank renaturalisation • Reforestation, planting trees, hedges • Grassland & soil restoration measures • Sustainable urban drainage & unsealing

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Policy Good Practice Criteria	
NbS mainstreamed in policy text and/or NbS as a central component of policy response	The initiative promotes "natural flood solutions" in South Limburg to reduce the risk of climate damage, combat drought, and make natural areas more species rich, robust, and resilient [1]. It also recognises the importance of community engagement and aims for social and economic benefits, including mobilising voluntary work and improving the aesthetic appeal of the landscape [1]. Though the initiative does not explicitly use the term nature-based solutions, the "natural flood solutions" are ecosystem-based approaches.
Societal challenge(s) are addressed and human wellbeing outcomes are identified	The initiative addresses the challenges of: - Flood prevention - Drought prevention - Increased biodiversity - Community building via organised volunteer events - Raising awareness about NbS - Integrating NbS into municipal development The initiative received local political support and momentum after the major flooding of summer 2021, which caused extensive material damages in the region [5].
Dedicated budget or funding stream	The grant from the National Postcode Lottery (the biggest charity lottery in the Netherlands) established a €1 million fund for local nature-based projects that contribute to flood safety from 2023 to 2025 [1]. The initiative is now working with the Limburg Water Safety and Spatial Planning programme to set up a new funding programme [3].
Indicators of impact and evaluation framework	Natuurkracht is working with universities to set up an impact-monitoring evaluation framework [3]. Wageningen University has already done some monitoring of Natuurkracht projects but has not yet published their findings.
Inclusivity and stakeholder engagement	The Natuurkracht project prioritises stakeholder involvement. The website platform is designed to be accessible and has many resources for users to get involved with NbS for flooding in the Netherlands, be it through educational courses, the database of case studies, volunteer and group meet-up opportunities, and more. Six municipalities have joined Natuurkracht as partners. Involvement on the municipal level strengthened community engagement and raised awareness about the positive benefits of nature restoration and the impacts of climate change [3]. Between 2023 and 2024, a total of 5,000 people participated in 50 activities—ranging from groups of schoolchildren to active volunteers. Together, they planted 10,000 shrubs and trees and 2,000 meters of hedgerow [6].
Consistency within policy mix	**New regional spatial planning vision** In the Netherlands, spatial planning is largely determined at the level of the municipalities who can set appropriate regulations and land use plans. At the provincial and national level, spatial visions set out the defined provincial and national interests. Limburg province is revising its spatial vision (Omgevingsvisie Limburg) to 2050; the draft is currently in public consultation and will be submitted for adoption by the Provincial Council in late 2025. The draft document adopts a systems approach in line with the NbS approach (though NbS are not mentioned explicitly) [3]. During 2026, the Environment and Planning Ordinance (Omgevingsverordening) will be amended based on the new vision. Whether these new provincial rules will promote or hinder the deployment of NbS remains to be seen [3].

	National Ecological Network The Dutch National Ecological Network (NEN) is a policy framework that supports landscape-scale NbS by promoting land-use conversion to nature, through the acquisition of land into public ownership and by changing the designation of private land for the creation of new nature [7]. **River Basin Management Plan** The Geul river basin falls within the Dutch River Basin Management Plan (RBMP) for the Meuse (under the EU Water Framework Directive). The current Dutch water permitting rules can hinder NbS implementation, hence the process of producing the next RBMP for the 2027-2034 period will be critical to reducing this barrier [3]. **Room for the River 2.0 programme** The government launched this programme in April 2025 as an extension of the national Room for the River programme completed in 2022 [8]. It is a collaborative effort between the national government and regional authorities, including the Ministry of Infrastructure and Water Management, the Ministry of Agriculture, Fisheries, Food Security and Nature, the Ministry of Housing and Spatial Planning, water boards, provinces, municipalities, and the Delta Commissioner. It aims to strengthen collaboration between the regions, municipalities, water boards, and other key stakeholders.
Knowledge development and transmission	Because the funding for projects through Natuurkracht was relatively limited, the initiative focused strongly on knowledge building and transmission. The website's platform has a comprehensive and clearly organised collection of learning resources and advice on how to implement NbS. The focus on education is now strengthened through the sixth partner who has joined in 2025 – an NGO (IVN Nature Education) committed to helping children and adults experience the joy, health, and importance of nature through nature activities, courses, projects, and campaigns [1].

Success Factors/Uptake/Impact

The example set by Natuurkracht was a key factor in the **revision of the provincial spatial planning vision** to align with the NbS approach. Despite no explicit mention of nature-based solutions, the draft vision takes a significant shift away from the established "grey" approach to align with NbS [3]. The Limburg water board is pushing for the draft vision to more explicitly define the province's responsibility to coordinate natural flood control measures such as disconnecting and infiltration, reusing rainwater, reducing paving, creating space for water collection and greenery, and reducing overflows [9]. The water board is also advocating for protection of stream valleys and wet lowlands from paving and development to allow water to flow freely, and clear rules about flood control measures in agricultural areas.

Natuurkracht worked with a consultancy to measure the costs and benefits of NbS. They used the water board's modelling approach for physical impacts but took a broader systems approach to identify potential solutions and their costs and benefits [10]. This study and the subsequent dialogues convinced the water board to adapt their own modelling to match an NbS approach to account for a longer-term costs-benefits analysis that better captures the advantages of using NbS [3].

The initiative played a key role in the establishment of the **Limburg Water Safety and Spatial Planning programme (WRL)**, an association between the Limburg municipalities, the Limburg Water Board, the Province of Limburg, and the national government supported by a management team [4]. WRL has three objectives: physical flood prevention and mitigation measures, water awareness and resilience education, and 'water and soil guiding,' which explores how building projects and new measures can work with the natural environment to create the most

resilient environment possible. WRL launched a study in November 2024 to determine which measures are needed for the entire area and are playing a key role in the revision of the spatial planning framework [11]. The measures are being developed with public participation and supported by targeted research.

Local involvement and collaboration have played a crucial role in the success of Natuurkracht, and the **public recognition** has been important for gaining local political support [3]. The initiative has mobilised an impressive volunteer effort [6]. It has established an educational programme with the inclusion of IVN Nature Education.

Barriers and Challenges

A key challenge is scaling up the **engagement with landowners** to implement NbS on their land. The Dutch government anticipates that the expansion of dedicated nature areas on agricultural land (the National Ecological Network) will be increasingly difficult, because it is dependent on the goodwill and cooperation of landowners [7]. Attractive economic conditions and other incentives will be key to generate the buy-in of private landowners.

The rules of the Dutch **Common Agricultural Policy Strategic Plan 2023-2027** affect farmer decisions in ways that are not always in line with integrating nature-based solutions for flood risk management and with long term river basin management planning. In addition, the fact that the CAP rules and subsidies can change every seven years with the EU budget cycle means that farmers are not always willing or able to commit to long-term landscape changes for flood control.

A key barrier is the **lack of methods and tools to measure the social and economic benefits** of the projects [3]. Projects are assessed in terms of short-term costs and benefits, which does not fit the longer timeframes needed for the delivery of the benefits of nature-based solutions. This also makes it difficult to demonstrate the social benefits to local and regional decision makers. Though the water board adapted their modelling to match a more NbS-friendly approach, their focus is still almost entirely on physical benefits of flood risk reduction without considering the broader social or welfare gains that nature-based water management strategies provide.

Potential for Replication or Upscaling

The initiative has created public recognition and awareness that are influencing Dutch attitudes to NbS for flood control. All municipalities the Geul flows through have signed a petition addressing the regional and national governments stating that they are in favour of NbS being included in climate adaptation plans [12].

The WRL partnership is pioneering in the Netherlands, where collaboration between the water boards and the provincial and local governments can at times present challenges, despite the Dutch political system of collaboration. The new national Room for the River Programme 2.0 launched in April 2025 aims to improve such collaborations [8].

The initiative has created a set of resources for public engagement, education and voluntary commitments that can be translated and re-used elsewhere. The model created by Natuurkracht is an example for other flood-prone areas in the Netherlands to enhance their natural landscapes, facilitating increased biodiversity and more green areas, reducing risk of both flood and drought, and decreasing expensive and visually unappealing ‘grey’ solutions to flooding, like dikes.

The initiative is also engaged in an Interreg-funded project with partners in the neighbouring regions of Germany and Belgium in the watershed to improve the ability of the regional and local experts to predict floods, to respond faster to risks, and to reduce the damage from water [13]. This transboundary collaboration is a key factor in restoring flood control in the whole river basin, as much of the water enters the Netherlands through the German and Belgian tributaries.

More Information & Sources

[1] Natuurkracht initiative (2025) https://natuurkracht.org/

[2] WWF Netherlands (2024) Nature Power: an innovative program for the South Limburg landscape. https://www.wwf.nl/wat-we-doen/waar-zijn-we-actief/nederland/natuurkracht

[3] Interview conducted with Andrea Bakker, Agriculture and Environment Advisor at The Limburg Nature and Environment Federation (13 August 2025)

[4] Wacht niet op Water (2025) Waterveiligheid en Ruimte Limburg (WRL) [Limburg Water Safety and Spatial Planning program]. https://wachtnietopwater.nl/wat-doet-de-overheid/programma-wrl/

[5] Wikipedia (2025) 2021 European floods. https://en.wikipedia.org/wiki/2021_European_floods

[6] Klinkers, Anouk (2025) Three years of cooperation against flooding and drought. Natuurkracht program. News posted March 24, 2025. https://natuurkracht.org/nieuws/2025/natuurkracht-verbindt

[7] Netherlands Government (2025) Environmental Data Compendium Indicator: Realisation of the national ecological network – land acquisition and conversion, 1990–2024. 21 July 2025. https://www.clo.nl/en/indicators/en130718-realisation-of-the-national-ecological-network-land-acquisition-and-conversion-1990-2024

[8] Delta Programme (2025) Room for the River 2.0 officially launched. Delta News 02, Thursday, June 26, 2025. https://magazines.deltaprogramma.nl/deltanieuws/2025/02/ruimte-voor-de-rivier-2.0-officieel-van-start

[9] H2O Waternetwerk (2025) Water board and province of Limburg disagree about new construction in flood-prone areas. News posted July 23, 2025. https://www.h2owaternetwerk.nl/h2o-actueel/waterschap-en-provincie-limburg-oneens-over-nieuwbouw-in-overstromingsgevoelige-gebieden

[10] H+N+S Landschapsarchitecten, Bureau Stroming, Acacia Water, Natuurkracht (2023) Watervasthoudenen Vertragen in Het Geuldal. Consultant's report for Natuurkracht initiative (Natuurmonumenten, ARK Rewilding Nederland, Natuur- en Milieufederatie Limburg, Het Limburgs Landschap en WWF Netherlands). October 2023. https://dz8tqgfxhghma.cloudfront.net/Rapporten/Water-vasthouden-en-vertragen-in-het-Geuldal-rapport.pdf

[11] Wachtnietop Water (2024) WRL package of measures - Geul river basin. https://wachtnietopwater.nl/wat-doet-de-overheid/stroomgebieden/stroomgebied-geul/

[12] WWF (2024) Watering Resilience: Case studies of nature-based solutions for climate adaptation in action. Netherlands example. https://dz8tqgfxhghma.cloudfront.net/Rapporten/Watering-Resilience_Nature-based-Solutions-for-Climnate-Adaptation-in-Action_FINAL_web.pdf

[13] Interreg Meuse-Rhine (2025) Interreg project Flood Wisdom. https://www.interregmeuserhine.eu/en/projects/flood-wisdom/

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