
EPGBTWB 03 - Tystiolaeth gan: Gareth Thomas, Louise Steel, Luci Attala - Prifysgol Cymru y Drindod Dewi Sant, UNESCO Most-Bridges | Evidence from: Gareth Thomas, Louise Steel, Luci Attala - University of Wales Trinity St David, UNESCO Most-Bridges

Senedd Cymru | Welsh Parliament

Pwyllgor Newid Hinsawdd, yr Amgylchedd a Seilwaith | Climate Change, Environment, and Infrastructure Committee

Bil yr Amgylchedd (Egwyddorion, Llywodraethiant a Thargedau Bioamrywiaeth) (Cymru) | Environment (Principles, Governance and Biodiversity Targets) (Wales) Bill

1. What are your views on the general principles of the Bill, and is there a need for legislation to deliver the stated policy intention?

We welcome the Bill's overarching aims, particularly its commitment to establishing an independent environmental governance framework and reversing biodiversity loss. However, we are concerned that the current drafting relies too heavily on scientific and regulatory data, without granting equal standing to community-held environmental knowledge. This includes cultural heritage, oral histories, lived experiences, and traditional ecological indicators.

To realise its full potential, the Bill must adopt an integrated and pluralistic approach to knowledge, one that acknowledges the legitimacy of multiple ways of understanding the environment. Community-based knowledge systems are not anecdotal or secondary; they are grounded in long-standing, place-based relationships with ecosystems and generate forms of evidence often overlooked by standardised scientific metrics. This is especially pertinent in the Welsh context, where environmental governance is inseparable from cultural identity under devolved law.

Embedding principles of epistemic justice and knowledge integration is not about expanding present consultation methods but about transforming the foundations of environmental policymaking. Without this shift, the Bill risks reinforcing technocratic approaches that exclude the very communities most capable of sustaining ecological care over the long term. Technocratic metrics, when detached from their place-based context, lose meaning for those who live in and actively sustain the environment. In river communities especially, such abstraction alienates the people whose practices and knowledge are vital to biodiversity regeneration.

2. What are your views on the Bill's provisions (set out according to Parts below), in particular are they workable and will they deliver the stated policy intention?

- **Part 1 - Environmental objective and principles (sections 1 to 7)**

While the environmental principles set out in the Bill are commendable, their practical application appears narrowly confined to state agencies and regulatory bodies. This represents a missed opportunity to mandate the inclusion of community-sourced environmental and heritage data in environmental assessments and planning processes. By excluding such data, the Bill risks undermining its own goals of ecosystem resilience and integrated governance.

Scientific metrics alone are not always reliable or sufficient. As Tengö et al. (2014) and others have argued, effective ecosystem governance depends on the integration of multiple knowledge systems, including traditional ecological knowledge, oral histories, and cultural heritage practices. The Bill currently lacks mechanisms to incorporate these perspectives in a meaningful or systematic way. However, this is essential in Wales, where communities and family farms may have linguistic and cultural links to places that go back generations.

We recommend that the legislation explicitly support and scale participatory environmental models already proven in practice, such as those currently being developed with Natural Resources Wales, in initiatives like Teifi River Voices (Teifi Demonstrator Project) and the UNESCO CoastalTales project. These projects demonstrate how citizen-led biodiversity stewardship, rooted in cultural memory and situated knowledge, can produce more inclusive and enduring ecological outcomes.

3. What are your views on the Bill's provisions (set out according to Parts below), in particular are they workable and will they deliver the stated policy intention?

- **Part 2 - The Office of Environmental Governance Wales (sections 8 to 32 and Schedules 1, 2 and 3)**

The establishment of the OEGW is welcomed, but its scope for engaging with community data, participatory methods, and local knowledge systems is not clearly defined. We recommend the Bill include a requirement for the OEGW to

develop community data protocols and participatory monitoring mechanisms that reflect diverse values and perspectives.

While the OEGW is a step forward, its framework does not ensure engagement with participatory data. Schreckenberg et al. (2019) show this is crucial for conservation legitimacy. This is especially the case in Wales where linguistic and indigenous heritage is central to the successful engagement of our eco-systems.

The OEGW should adopt governance structures that reflect collective leadership models proven successful in heritage-environment partnerships in Wales. Community-led forums with shared decision-making power, including representatives from civil society, cultural organisations, and Indigenous knowledge holders, should be structurally embedded into its remit.

The OEGW could benefit from guidance drawn from contested urban and river restoration efforts. For example, the tensions on Kilvey Hill between ecological protection and commercial tourism highlight why oversight mechanisms must be sensitive to community concerns and the risk of cultural erasure.

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Restoration projects there demonstrate how reclaimed post-industrial landscapes serve not only ecological but also cultural heritage roles, with local groups playing crucial roles in stewardship. We therefore recommend that the OEGW's remit be expanded to include mediation capacities and an explicit mandate to preserve intangible heritage alongside ecological objectives.

4. What are your views on the Bill's provisions (set out according to Parts below), in particular are they workable and will they deliver the stated policy intention?

- **Part 3 - Biodiversity targets, etc (sections 33 to 38)**

The targets framework includes 'evidence quality' as a priority area, which is promising. However, there is no definition of what constitutes valid evidence. The current framing risks defaulting to purely scientific metrics. We strongly recommend the Bill include a clause recognising community and heritage-based evidence as legitimate contributions to biodiversity understanding and measurement.

Biodiversity targets risk excluding non-scientific evidence. Pillai and Gouhier (2019) highlight how flawed statistical models distort biodiversity assessments.

This narrowness can be seen in practice: contemporary river restoration efforts often ignore oral indicators and community sense of place in favour of purely technical interventions. Acknowledging cultural relationships to species, seasons, and water bodies would allow biodiversity targets to be meaningfully contextualised and better supported by the public. By contrast, the enforcement of seemingly arbitrary technocratic biodiversity markers can further dislocate people from their environments, deepening the disconnect between governance structures and the lived realities of place-based communities.

In the Tywi River case, restoration has often focused on ecological indicators to the exclusion of heritage knowledge and local use. The coracle fishers' embodied understanding of species, migration patterns, and river health is a prime example of the kind of data the Bill should formally acknowledge under its biodiversity target framework. These knowledge systems are not anecdotal but methodologically distinct.

5. What are your views on the Bill's provisions (set out according to Parts below), in particular are they workable and will they deliver the stated policy intention?

▪ Part 4 - General (sections 39 to 45 and Schedule 4)

4 provides necessary technical provisions, but it does not resolve the exclusion of community environmental data nor make provision for participatory implementation. The interpretation of terms such as 'environmental protection' and 'evidence' needs broadening to include social and cultural dimensions.

Part 4 must expand definitions of evidence and effectiveness to include community narratives and oral histories, as discussed by Jax (2010).

6. What are the potential barriers to the implementation of the Bill's provisions and how does the Bill take account of them?

A key barrier to effective implementation is the absence of clear mechanisms to ensure that local, community-based, and heritage knowledge is integrated into biodiversity target setting and environmental assessments. Without such

integration, the Bill risks reproducing a technocratic governance structure that lacks public legitimacy and overlooks vital on-the-ground environmental insights. We are not advocating for more consultation, as well-intentioned as that may be, but for a structural commitment to knowledge pluralism. This means embedding community expertise, traditional ecological knowledge, and cultural indicators within the formal evidentiary frameworks used to shape environmental decision-making.

Without engaging diverse knowledge systems, implementation risks failure. A multiple evidence base (Tengö et al.) would improve legitimacy and success.

The exclusion of embedded local knowledge from governance risks reinforcing technocratic models that communities may distrust or actively resist, as seen in the marginalisation of traditional fishers and coracles under current planning regimes. This could hinder implementation and erode the collaborative spirit that characterises much of Wales' devolved environmental action.

The exclusion of community voices from major planning decisions, such as the proposed cable car scheme on Kilvey Hill or overly technocratic management of the Tywi, demonstrates the urgent need for structural mechanisms of inclusion. Otherwise, restoration projects will risk failure through public opposition or lack of long-term stewardship.

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7. How appropriate are the powers in the Bill for Welsh Ministers to make subordinate legislation (as set out in Chapter 5 of Part 1 of the Explanatory Memorandum)

The powers granted to Ministers under the Bill appear proportionate, but their legitimacy and effectiveness depend on how inclusively they are exercised. As currently drafted, consultation duties risk defaulting to established scientific and regulatory bodies, potentially excluding those with lived, place-based environmental knowledge. Section 6D could be significantly strengthened by requiring engagement not only with scientific experts, but also with community groups, local heritage organisations, and other most importantly from non-institutional knowledge holders.

To make this process genuinely inclusive and accessible, consultation mechanisms should be adapted to meet the capacities and contexts of

community actors. This includes allowing for oral submissions, culturally appropriate formats, and extended timeframes that recognise voluntary and grassroots participation constraints. Without such provisions, there is a risk that policies will be technically sound but socially disconnected—lacking the ground-level relevance and support needed for successful implementation.

We recommend that ministerial powers to set or revise environmental objectives be made conditional on demonstrable engagement with these wider constituencies. This would help ensure that decisions are informed by a richer, more context-sensitive evidence base and that affected communities can see themselves as partners in environmental governance, rather than as consultees after the fact.

8. Are any unintended consequences likely to arise from the Bill?

Yes. The absence of provisions for community data and local knowledge could lead to biodiversity strategies that are less effective, less inclusive, and less sustainable in practice. This risks alienating communities and losing valuable insights into environmental change and stewardship.

Yes. Ignoring cultural knowledge risks unintended exclusion, leading to ineffective or mistrusted policies, as critiques of technocratic governance have shown.

One likely consequence is the alienation of communities who see their relationships with biodiversity, such as those grounded in intergenerational practices and identity, ignored in the new legislative framework. This could reduce policy efficacy and fracture long-standing community stewardship traditions.

One unintended consequence is the potential for cultural disconnection. The example of coracle fishers (an indigenous form of fishing with a 1500 recorded history in Wales) being excluded from ecological decision-making reveals how state-led restoration, when not collaboratively structured, risks eroding the very human ecologies that define the river's resilience.

9. What are your views on the Welsh Government's assessment of the financial implications of the Bill as set out in Part 2 of the Explanatory Memorandum?

The financial memorandum does not appear to allocate resources to community engagement or the development of inclusive data systems. This omission

undermines the practical delivery of a pluralistic and participatory environmental governance model. These do not need to be expensive or onerous as those being developed with NRW on the Teifi Demonstrator Project show.

The costings omit crucial elements like community engagement infrastructure, shown to be vital by Berkes et al. (2000).

10. Are there any other issues that you would like to raise about the Bill and the accompanying Explanatory Memorandum or any related matters?

We recommend the Bill be amended to explicitly include the role of cultural heritage, traditional ecological knowledge, and community monitoring systems in delivering biodiversity and governance objectives. Strengthening links with the Well-being of Future Generations Act should also involve heritage and cultural indicators of ecological health.

We urge amendments that recognise cultural knowledge, oral histories, and local observations as part of biodiversity governance aligned with the Well-being of Future Generations Act.

Given the unique legal context of the Well-being of Future Generations Act and the active integration of heritage and environment in many Welsh initiatives, the Bill must explicitly state its alignment with this Act. Cultural heritage should be named as a dimension of environmental protection, and cultural indicators of ecosystem health formally incorporated into the new governance framework.

We want to emphasise that our call is not for increased consultation as a supplementary or procedural gesture. Rather, we advocate for an integrated approach to knowledge that recognises community, cultural, and heritage knowledge systems as valid and essential alongside scientific data. This requires a shift from viewing such knowledge as reactive or anecdotal, to treating it as foundational to policy design, target setting, and governance. Integration means co-creation of knowledge and shared epistemic authority, not mere validation of scientific conclusions. It calls for governance structures, such as the Office of Environmental Governance Wales, to be re-designed to accommodate knowledge plurality, ensuring community representatives, oral traditions, seasonal indicators, and place-based experience inform biodiversity objectives from the outset. Without this epistemic integration, the Bill risks reproducing knowledge hierarchies that undermine its own environmental aims.
