



Green Foundation Ireland

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Submission to the Citizens' Assembly

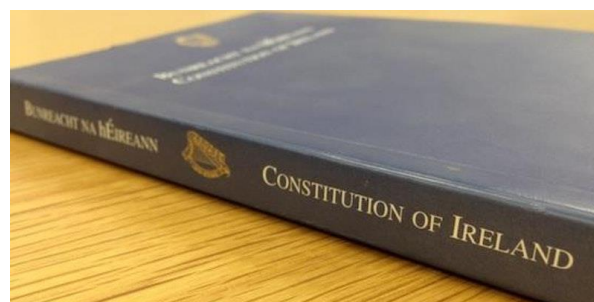
How the State can improve its response to the issue of biodiversity loss

Green Foundation Ireland wishes to focus on two topics:

- (a) **Constitutional Protection of Biodiversity and the Environment.**
- (b) **Light Pollution.**

(a) CONSTITUTIONAL PROTECTION OF BIODIVERSITY AND THE ENVIRONMENT

We ask the Citizens' Assembly to recommend a **referendum on Constitutional protection of our biodiversity and the environment**. This would publicly show our commitment throughout the world to our environment, by giving biodiversity the strongest legal protection possible. In Ireland, 4 to 5 people die every day from air pollution, the status of our species and habitats is declining, and we are not meeting our targets on climate change. Constitutional protection would give the public a right to a healthy and biodiverse environment, and ultimately would save lives.



For further information, please see:

- (1) A quick summary of why Constitutional legal protection is necessary by Colin Stafford-Johnson – <https://youtu.be/rldVgD5faF8>
- (2) Our seminar videos – <http://www.greenfoundationireland.ie/constitution-seminar-mar-2014-2/>

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Constitutional protection of the environment can be achieved in a number of ways:

(1) Right to Nature

This is an anthropocentric, human centred approach to nature, giving people the right to a clean, healthy and biodiverse environment. It is a right pertaining to each individual, because of the importance of nature to our own existence.

Article 66 of the Constitution of PORTUGAL (Environment and quality of life) reads: **(1)** Everyone shall possess the right to a healthy and ecologically balanced human living environment and the duty to defend it. **(2)** In order to ensure enjoyment of the right to the environment within an overall framework of sustainable development, acting via appropriate bodies and with the involvement and participation of citizens, the state shall be charged with: (a) Preventing and controlling pollution and its effects and the harmful forms of erosion; (b) Conducting and promoting town and country planning with a view to a correct location of activities, balanced social and economic development and the enhancement of the landscape; (c) Creating and developing natural and recreational reserves and parks and classifying and protecting landscapes and places, in such a way as to guarantee the conservation of nature and the preservation of cultural values and assets that are of historic or artistic interest; (d) Promoting the rational use of natural resources, while safeguarding their ability to renew themselves and maintain ecological stability, with respect for the principle of inter-generational solidarity; (e) Acting in cooperation with local authorities, promoting the environmental quality of rural settlements and urban life, particularly on the architectural level and as regards the protection of historic zones; (f) Promoting the integration of environmental objectives into the various policies of a sectoral nature; (g) Promoting environmental education and respect for environmental values; (h) Ensuring that fiscal policy renders development compatible with the protection of the environment and the quality of life. Article 52 (Right of petition and right of actio popularis) **(3)** Everyone, personally or through associations that purport to defend the interests in issue, enjoys the right of actio popularis in the cases and under the conditions provided by law, including the right to advocate, on behalf of the aggrieved party or parties, the following: (a) to promote the prevention, the suppression and the prosecution of offences against public health, consumer rights, the quality of life, the preservation of the environment and the cultural heritage.

(2) Rights of Nature

Nature itself can be given legal standing and rights. Inanimate objects such as companies and ships have legal standing, and rivers, forests and nature can have them too. It is based on the principle that it is "arbitrary to restrict justice and rights exclusively to inter-human relationships and to tolerate a situation in which interested parties are deprived of essential values in the distributive process on the basis of morally irrelevant factors – such as their not being human".

This right of nature was enshrined by **ECUADOR** in its Constitution in 2004. **Article 1** of the new "**Rights for Nature**" chapter of the **Constitution of Ecuador** states: "Nature or Pachamama, where life is reproduced and exists, has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution".

(3) Environmental Duties

Our duty to protect nature is enshrined in several Constitutions. In some, there is a duty on the individual.

Article 53 of the Constitution of ESTONIA (2015) reads: "Everyone has a duty to preserve the human and natural environment and to compensate for damage caused to the environment by him or her. The procedure for compensation shall be provided by law".

Some countries also place obligations on public bodies to protect and improve the environment.

Article 21 of the Constitution of THE NETHERLANDS (1814, with revisions to 2008) states: "It shall be the concern of the authorities to keep the country habitable and to protect and improve the environment".

(4) Future Generations

Some Constitutional protections reference protection of nature for future generations.

Article 11(bis) of the Constitution of LUXEMBOURG (1868, with revisions to 2009) states: "[t]he State guarantees the protection of the human and cultural environment and works for the establishment of a durable equilibrium between the **conservation of nature**, in particular its capacity for renewal, and the satisfaction of the needs of present and future generations".

(5) Protection of Animals

Some countries enshrine welfare for animals in their Constitution along with nature.

Articles 72 and 73 of the Constitution of SLOVENIA (enacted 1999) states:

"Article 72 (Healthy Living Environment): Everyone has the right in accordance with the law to a healthy living environment. The state shall promote a healthy living environment. To this end, the conditions and manner in which economic and other activities are pursued shall be established by law. The law shall establish under which conditions and to what extent a person who has damaged the living environment is obliged to provide compensation. The protection of animals from cruelty shall be regulated by law."

"Article 73 (Protection of Natural and Cultural Heritage): Everyone is obliged in accordance with the law to protect natural sites of special interest, rarities and cultural monuments. The state and local communities shall promote the preservation of the natural and cultural heritage."

In **INDIA** this Constitutional protection is extended to all living creatures. **Article 51A (g)** (1949) states the following: "It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures."

CONCLUSION

All EU Member State Constitutions except five contain elements of Constitutional environmentalism – either rights, duties or references to animals. The five without Constitutional protection are: Cyprus, Czech Republic, Denmark, the UK (which has no written Constitution) and Ireland.

To give our biodiversity the legal protection it deserves, we must enshrine the protection of nature into our State's fundamental principles, by inserting nature into our Constitution.

(b) LIGHT POLLUTION

For further information, please see our animation for the Citizens' Assembly on Biodiversity Loss:

<https://youtu.be/F55NzGf1dyy>

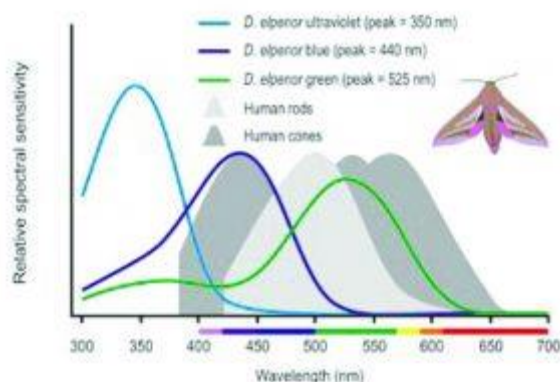
Animals and people suffer from the effect of light pollution in many ways. The effect of street lighting in the evening, throughout the night, or in early morning, effects human circadian rhythms, and can play a role in the development of breast, skin, endometrial, ovary, colorectal and skin cancers, cardiovascular diseases, reproduction, endometriosis, gastrointestinal and digestive problems, diabetes, obesity, depression and sleep deprivation.

See EU Health and Consumers – Health Effects of Artificial Light:

https://ec.europa.eu/health/scientific_committees/opinions_layman/artificial-light/en/l-2/4-effects-health.htm#0

There are nine species of bat in Ireland, and Ireland is the world stronghold for Leisler's bats. All our species are slow to breed, having only one baby every year or two, and are prone to disturbance. Each bat eats approximately 3,000 insects per night and are an apex predator controlling the number of flies and midges.

Artificial lighting affects the ability of bats to see, as their eyes are specifically adapted for use in low light levels. They are easily blinded by bright lights. Insects are affected too, as moths are attracted to artificial lighting, and waste precious energy circling them. This results in reduced breeding of moths, and their energy loss can lead to their death. In addition, predators such as bats, which must stay in dark areas, have their food source taken away from them.



This graph shows the spectrum of light seen by the elephant hawk moth. It can detect colours at light levels which are equivalent to starlight.

Another consequence of too much light is loss of bat roost. If a roost is illuminated, some species of bat may be unable to use it. Bats such as Whiskered bats, Natterer's bats and Daubenton's bats are very sensitive to light pollution. A study in 2006 by Alison Fure showed that Daubenton's bats were sensitive to light levels as low as 1 lux.

Bats also delay emergence from their roosts when light levels are high. The optimal time for feeding on insects is shortly after dusk, so the delay in emergence results in the bats feeding on reduced insect numbers.

Lighting also causes loss of feeding and commuting routes. Some species of bats, such as the Myotis and Lesser Horseshoe bat, actively avoid bright areas. Lighting of a bat commuting area, such as a river, may prevent them from travelling from a roost to a feeding site. Bats may waste precious energy and time in flying longer routes to their feeding locations and, in extreme cases, may be prevented from feeding or roosting in their preferred location.



Light pollution on the Mullingar
Greenway

***Light Pollution in Mullingar, County Westmeath
at 5:00am***

In addition, many towns throughout Europe (such as Tarnos in South-West France) have a dark sky zone, with streetlights being turned off at 11:30pm and on again at 7:00pm.

CONCLUSION

We wish to have more designated dark sky areas throughout Ireland, such as the Mayo Dark Sky Park, and the Kerry Dark Sky Reserve. At least one should be designated for every county. As mentioned above, many towns throughout Europe have a dark sky zone, with streetlights being turned off during a designated period each day. We could trial this in Ireland.

In addition, lighting must be kept away from potential bat roosts and feeding areas, with strict restrictions on the lighting of old buildings, rivers and bridges, and the use of sensor lights, restricted timing, and low-level pedestrian lighting where possible. Fingal County Council is currently trialling these measures along some of their pedestrian walkways and cycleways. Light spillage and pollution can be kept to a minimum with the use of cowls, caps, and low-level bollard lighting. Bulbs with a low UV component can also be used, and directional lighting can focus light and reduce light spillage.

Lighting design should always be in accordance with:

Bats and Lighting in Ireland – Guidance Notes for Planners, Engineers, Architects, and Developers (Bat Conservation Ireland, 2010):

https://www.batconservationireland.org/wp-content/uploads/2013/09/BCIrelandGuidelines_Lighting.pdf

Bats and Lighting in the UK – Bats and the Built Environment Series (Institute of Lighting Professionals, September 2018).

Guidance Notes for the Reduction of Obtrusive Light GN01 (Institute of Lighting Professionals, 2011).

The European Eurobats guidelines are:

https://www.eurobats.org/sites/default/files/documents/publications/publication_series/WEB_DIN_A4_EUROBATS_08_ENGL_NVK_28022019.pdf

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