



GMO's and the Environmental Liability Directive: the case for special treatment

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The Environmental Liability Directive (ELD - 2004/35) provides the liability regime for environmental harm arising from the use of genetically modified organisms (GMOs). This is the regime that was promised during the negotiation of the Deliberate Release Directive (2001/18 - Recital 16), but it also includes environmental damage caused by other activities.

The ELD has to be implemented in national law by April 2007. DEFRA, the Welsh Assembly Government and the Scottish Executive are conducting consultations about their planned approaches. There are shortcomings in the Government's proposals for implementing the ELD for all the activities it covers. The inclusion of GMOs, among a whole range of potentially hazardous activities (listed in Annex III of the ELD) that are very different in nature from each other, has led to proposals which leave it very unlikely that any company or person using GMOs will be financially liable for harm that may arise.

This briefing outlines some of the important reasons why GMOs should have a more robust and tailored regime.

1. **The nature of the risks from GMOs is very different from other Annex III activities: GMOs are living and able to multiply in the environment.** Any adverse effects could be more far-reaching and more expensive to mitigate than for the other potentially hazardous activities covered by the Directive, such as chemical discharges to water. Furthermore, there is little experience to draw upon in long-term assessment of the potential effects – the first GM crops have only been grown commercially for a decade, with no systematic monitoring of their impacts. Only minimal cultivation has taken place in the UK during the Farm Scale Evaluations.
2. **The permit system for GMOs is not location specific.** Permits for the discharge of pollutants to rivers and air, waste disposal and water abstraction are based on assessments of the local environment where they will occur. In contrast, the system of GMO approvals is Europe-wide, with a very generalised approach to the receiving environment. This is a very permissive approach to pollution and could result in a higher risk of damage to sensitive sites and species over a wide area. This should be balanced by appropriate financial and legal accountability.

It is also possible that European approval for a GMO could be given despite concerns in the UK. This is because the system operates on the basis of a qualified majority. The UK could oppose a permit because adverse environmental

impacts are possible but this could be awarded either because a qualified majority of other member states is achieved, or because the European Commission makes the decision when agreement is not reached by the regulatory committee or council of ministers. (This situation arose in relation to the approval of Syngenta's insect resistant maize, Bt176). If, subsequently, environmental harm arose, the treasury could be forced to pay for remediation, not the company involved, if the permit defence was allowed.

The state of knowledge of GMOs in the environment is limited and unexpected events have been recorded as a result of field trials. For instance, pollen transfer over 26 km was recorded in Scotland for oilseed rape when previous such events had been limited to below 5km¹. During the Farm Scale Evaluations, a cross pollination between oilseed rape and the arable weed charlock was recorded which had previously been thought to be impossible in the wild because the two species were considered to be too distantly related².

- 3. The scope of environmental harm covered under the ELD does not match that under GMO permitting rules.** The environmental risk assessment that is conducted for the use of GMOs under the Deliberate Release Directive(2100/18) and Food and Feed Regulations (1829/2003), considers the whole environment including the soil, not just protected species and habitats. GMOs could damage farmland biodiversity or habitats that are not protected – a currently common species could be pushed to threatened status or GMOs could spread over marginal land (requiring large investments to control them) and no financial liability for damage will be held by the company producing or using the GMOs. If such environmental harm had been predicted, the release of the GMO would not have been allowed.

Therefore, the scope of the protection of biodiversity must be made consistent with existing national and European GMO laws and be extended to cover a wider definition of biodiversity. Many species, such as the skylark, linnet and brown hare, only became protected once degradation of the agricultural environment had become so severe that this status was required to prevent further decline. Maintaining and improving the agricultural environment as well as the natural environment is important in biodiversity protection as a whole. The ELD must be consistent with national approaches to protecting biodiversity.

- 4. Any harmful effects may take many years to arise or be detected.** Different GMOs also have the capacity to combine through cross pollination so new traits may be gene 'stacked' in feral plants or in wild. Over time (if the traits provide plants with a competitive advantage over natural plants) these plants could become invasive of certain habitats. The processes involved in such plants becoming fitter are not well understood. Experience of exotic plant introductions suggests that the 30 year time limit on liability in the ELD may not be sufficient to eliminate the possibility of unforeseen harm from the release of GMOs. For example, ACRE³ report that Japanese Knotweed was not recorded in the wild until 61 years after it was first cultivated in gardens in 1820⁴.

¹ http://www.defra.gov.uk/environment/gm/research/pdf/epg_rq0216.pdf see page 4

² http://www.defra.gov.uk/environment/gm/research/pdf/epg_1-5-151.pdf

³ The Government's Advisory Committee on Releases into the Environment

⁴ <http://www.defra.gov.uk/environment/acre/fsewiderissues/acre-fse-060317draft.pdf> see example 1

5. **UK laws cover the use of GM plants and animals in laboratories, but these fall outside the strict liability regime of the ELD.** GMOs covered by the Deliberate Release Directive and the Contained Use Directive are Annex II activities under the ELD. However, the Contained Use Directive only applies to genetically modified micro-organisms. UK laws implementing the Contained Use Directive were extended to include the production and use of GM animals and plants in laboratories. Therefore, consistency is needed or, for example, a genetically modified insect or fish could escape from a laboratory and cause environmental harm, but no legal or financial liability would apply.
6. **The public have concerns about environmental risks of GMOs and want to see firm regulation.** The Government's own public debate on GM, '*GM Nation?*' highlighted people's concerns about the environmental impact of GMOs and their preference for firm regulation. This clear policy steer has to be recognised in the environmental liability rules that are applied to GMOs in the UK.
7. **Financial security.** The Directive requires that "*Member states shall take measures to encourage the development of financial security instruments and markets by the appropriate economic and financial operators*" (Article 14.1). In the case of GMOs the provision of financial security is in doubt because to date no insurance company has been prepared to quote premiums to cover GMO cultivation because of the lack of experience and scientific data. Difficulties in obtaining data on the long term environmental impacts of GMOs may mean insurers may be reluctant to provide long term cover. Companies releasing GMOs into the environment should be required to have compulsory insurance in place prior to the release.

Conclusion and Recommendations

The release of GMOs into the environment poses substantially different risks to the environment from other activities covered by the Environmental Liability Directive. The extent of these differences means that the Welsh Assembly/Scottish Parliament/House of Parliament would be justified in make GMOs a special case within the domestic legislation.

This would entail:

- dropping the state of knowledge and permit defences
- making the GMO consent holders not farmers (operators) strictly liable
- extending the time limit on liability to 75 years.
- expanding protection to cover the widest possible area of land and water
- requiring companies releasing GMOs to have compulsory insurance.

Without such measures it would appear that no-one will be liable for the harm GMOs cause and the public purse will pay for any remedial or compensatory measures required. Under the current proposals the taxpayer is effectively subsidising the biotechnology industry by underwriting the risks of their activities. We consider that the public would not accept such a position. We believe the recommendations outlined above would result in a policy that reflects the scientific uncertainty about the long term impacts of GMOs, is in line with current GMO legislation, and is fair to both the environment and the public.
