

DELIVERING ON PROMISES: THE BORD NA MÓNA BIODIVERSITY ACTION PLAN 2010-2015

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SUMMARY

Following an extensive round of consultation with key stakeholders and interested parties, in 2010 Bord na Móna launched its first Biodiversity Action Plan 2010-2015. The plan sets out five clear objectives for the Bord na Móna ecology team to frame the work necessary to deliver a comprehensive understanding and awareness of how management of the Bord na Móna bogs into the future will be carried out responsibly and inclusive of the interests of all stakeholders. This paper outlines the challenges and progress of the plan to date and shares some of the lessons learned between 2010 and 2012.

BACKGROUND

Since its establishment effectively 75 years ago, the main objective of Bord na Móna has been to develop the bogs of Ireland for the industrial scale production of peat in order to provide an indigenous energy source for the people of Ireland. In recent decades the company has expanded to embrace the businesses of horticultural peat production, renewable energy, and environmental and resource recovery services, in turn creating a growing and dynamic company that can continue to sustain itself into the future. The company is a significant landowner in Ireland, with the concentration of lands centred on former raised bogs in the Midland counties of Ireland. All peat operations are carried out according to best practice under Integrated Pollution Prevention Control Licenses issued and regulated by the Environmental Protection Agency. The licenses include a number of regulatory conditions relating to best environmental practice, including a condition governing rehabilitation of the former peat production areas. It has become increasingly apparent that the rehabilitation management of the Bord na Móna bogs now and in the future can contribute greatly to biodiversity and this has led to the development of the Bord na Móna Biodiversity Action Plan 2010-2015.

BIODIVERSITY OF THE BORD NA MÓNA BOGS

Biodiversity both *is* all life on earth and *supports* all life on earth; as humans we depend on biodiversity for clean air and water, healthy soils, food, building materials, and medicines. The importance of biodiversity in all our lives is reflected in the range of legislative instruments and policies that require their sustainable management and conservation, such as the Wildlife Act 2000 (Irish national legislation), the EU Habitats and Birds Directives (European level) and the Convention on Biological Diversity (International level). Ireland

signed the Convention on Biological Diversity in 1992, it was ratified in 1996 and subsequently the Irish Government set about developing a National Biodiversity Plan in 2002 which was further updated in 2011. The value of bogs and the potential value of the cutaway bogs in terms of enhancing the national biodiversity resource were highlighted in both plans. It is increasingly apparent that the Bord na Móna bogs which includes up to 80,000ha of bog and associated lands such as fringe woodland, riparian areas and workshop areas, as well as an extensive railway network that links the greater part of the bogs across the Midlands presents a range of opportunities now and in the future for the expansion of a range of habitats and species that have otherwise been marginalised in the intensively developed Irish landscape.

This is most obviously seen through the effects of the rehabilitation of the cutaway bogs and management of bog fringe areas to date such as at the Lough Boora Parklands in Co. Offaly and the Oweninny Bog in Co. Mayo. Once peat production ceases, natural colonisation rapidly proceeds on the cutaway bogs and a whole array of diverse habitats and species emerge, some of which are considered rare and restricted in distribution in Ireland. Species such as breeding waders Lapwing (*Vanellus vanellus*), Curlew (*Numenius arquata*), Golden Plover (*Pluvialis apricaria*), and over-wintering migrants such as Whooper Swan (*Cygnus cygnus*) have been recorded in increasing numbers on the cutaway bogs. Other rarities include the Marsh Fritillary (*Euphydryas aurinia*) which has been recorded on three Bord na Móna cutaway bogs areas to date. Habitats with fragmented distribution such as rich fen and native woodland (currently less than 1% cover in Ireland) are beginning to extend across the cutaway bogs while in wetter areas, wetland habitats such as fen and reed-bed are also expanding. The fringe areas on the edges of the former peat production units as well as remaining bog remnants will also serve to create ecological corridors between fragmented and isolated habitats thereby providing a platform for sustaining viable habitats and species populations into the future, as well extending the range of currently restricted wetland and woodland ecosystems within the Irish landscape. In some instances it has been possible to rehabilitate former Bord na Móna drained reserve bogs which comprise *Degraded* Raised Bog, a listed habitat on the EU Habitats Directive that may revert to *active* Raised Bog an increasingly rare habitat in Ireland which is a priority habitat (as in the case of the Killamuck Bog restoration project (see *Peatlands International* 2/2009)).

DEVELOPMENT OF THE BORD NA MÓNA BIODIVERSITY ACTION PLAN

Following from this growing awareness of the potential biodiversity value of the Bord na Móna bog areas, Bord na Móna formalised its Corporate Biodiversity Objective in 2009. The aims are to strengthen the role of Bord na Móna in enhancing biodiversity and to create awareness of the values of cutaway bogs through wise-use management for biodiversity. As part of this Corporate Biodiversity Objective and to coincide with the 2010 International Year of Biodiversity, Bord na Móna developed a Biodiversity Action Plan.

The Biodiversity Action Plan is the product of consultations with relevant bodies and interest groups combined with the knowledge based on rehabilitation work carried out on the cutaway bogs and fringe areas to date. It was circulated to a range of consultees in March 2010 including statutory bodies such as the EPA, National Parks and Wildlife Service and ENGOS such as BirdWatch Ireland, the Irish Peatland Conservation Council and Butterfly Conservation Ireland. A number of submissions were returned and these were incorporated into the final published version. The rehabilitation experience to date, and range of habitats

and species recorded on the Bord na Móna bogs is outlined in the Biodiversity Action Plan, along with the proposed Objectives and Actions for the period 2010-2015 to build on the existing body of rehabilitation work and establish a framework for future planning for biodiversity on the Bord na Móna bogs.

The Bord na Móna Biodiversity Action Plan 2012-2015 was officially launched in November 2010 and subsequently, it has informed sections of the 2011 National Biodiversity Plan which was launched a year later. In particular it set the trend in terms of how we can plan for the further integration of the Bord na Móna bog areas in the context of national biodiversity strategies.

OBJECTIVES AND ACTIONS OF THE BIODIVERSITY ACTION PLAN

Objective 1: To continue to carry out all works in line with best practice guidelines and relevant legislation across all Bord na Móna bogs:

This objective relates to ongoing compliance with relevant legislation governing Bord na Móna activities. Compliance is necessary to ensure the continuation of the core businesses within Bord na Móna (peat production) while also facilitating development of potential commercial developments (such as wind farms) on Bord na Móna bog areas that will have to go through EIA and planning processes. This involves tracking other policy developments such as the BOGLAND project (Renou-Wilson *et al.* 2011) and the Strategy on Responsible Peatland Management (IPS).

Progress update 2012: Bord na Móna is playing an important role in the recently established National Peatlands Council. As part of the council's remit, Bord na Móna is assisting in finding solutions to the ongoing turf cutting issues and re-location of turf cutters from SAC areas to convenient alternative sites, within the Bord na Móna peatland resource where possible. This is a fundamental step in clearing the way towards the development of a National Peatland Strategy as outlined in the BOGLAND report which was published in 2011. The ecology team also promotes best practice in terms of restoration, rehabilitation and other after uses on a national level, organising workshops and knowledge share events. The IPS Strategy on Responsible Peatland Management is also being promoted by the company and to other peatland managers in Ireland.

Targets 2012/2013: Continue to track national and international policy changes; continue to inform and contribute to the development of a National Peatlands Strategy for Ireland.

Objective 2: To survey and identify potential biodiversity areas within Bord na Móna bogs:

An ecology survey of all the Bord na Móna bogs was initiated in 2009. The survey involves a baseline ecological assessment of each of the bog areas and the output is detailed habitat maps, species records and baseline reports for each bog area (approximately 130). This data adds to the knowledge base as to how the Bord na Móna bogs will develop in the short term and long term in relation to biodiversity. It also informs how the Bord na Móna bogs can be connected by fringe areas, other nature conservation sites and inter-connecting wildlife corridors, following Green Infrastructure objectives. The survey also covers additional target species and habitat surveys such as the ongoing surveys by BirdWatch Ireland.

Progress update 2012: To date, over two thirds of the Bord na Móna lands have been surveyed, approx. 55,000ha. The survey has shown that there are over 25 habitats represented on the cutaway bog, mostly dominated by birch woodland and fen communities where peat production continues to the basal layers; with heath and embryonic bog communities establishing on deeper peats where the acidic substrate remains. Data from each of the areas surveyed is inputted to the Bord na Móna GIS system and current habitat maps generated as well as potential future habitat maps to indicate how sites will develop post peat production. Bird data and species distribution maps are also generated and the data is shared with the National Biodiversity Data Centre Survey, as an important part of national biodiversity planning. In 2011 a comprehensive re-survey of the Oweninny Bogs, rehabilitated between 2003 and 2005 was completed. The results outline the recovery of the site and regeneration of peat forming communities on the post industrial landscape over a 10 year period (Fallon 2012, *this publication*). At this point the baseline survey has allowed for the development of Draft Rehabilitation plans for over 55,000ha of Bord na Móna land. Two Greenhouse Gas measuring projects have also been established on cutaway bog areas to determine the carbon sequestration potential of cutaway habitats (Wilson 2012; *this publication*).

Targets 2012/2013: Complete baseline ecology survey and develop rehabilitation plans for remaining bog areas; continue to update habitat maps and bird species surveys.

Objective 3: Promote and develop best practice in terms of rehabilitation plans for all Bord na Móna bogs to stabilise former peat production areas and enhance biodiversity:

A number of rehabilitation methods (drain blocking, rewetting, tree planting) have already been tried and tested by Bord na Móna, in particular forestry, agriculture, and wetland development. These will be added to as the ecology survey identifies potential options for biodiversity enhancement, such as reedbed establishment and enhancement along artificially drained bog areas. Relevant new technologies developed in other countries will also be evaluated.

Progress update 2012: A number of rehabilitation trials were established on cutaway bog areas in 2010 and 2011. The focal areas were those areas that were proving slow to re-colonise such as areas prone to erosion. This included fertiliser and seeding (nurse crop) trials and results indicate that an initial fertiliser addition is sufficient to boost natural colonisation. Rehabilitation has also been carried out on degraded raised bog areas (approx 500ha to date). A trial area has also been established to determine best practice for enhancement of breeding wader populations on cutaway bogs in partnership with BirdWatch Ireland (McCorry 2012; *this publication*).

Targets 2012/2013: Continue to monitor established rehabilitation trial areas; continue rehabilitation of degraded raised bog areas.

Objective 4: To raise awareness and create a greater appreciation of the biodiversity and natural heritage of Bord na Móna cutaway bogs and associated lands:

This involves a programme of communication within the company and to the wider public. The publication and distribution of the Biodiversity Action Plan is a central part of this objective, as well as organised biodiversity events for Bord na Móna employees and the wider public.

Progress update 2012: In general, biodiversity is viewed by as an important aspect of Bord na Móna, particularly in the peat production businesses. In 2011, a series of ecology training

sessions and ecology updates for Bord na Móna employees were carried out, as well as a number of public outreaches on radio and television.

Targets 2012/2013: Continue to promote the Bord na Móna Biodiversity Action Plan; continue to update employees as to its progress; develop further education tools for local schools and third level institutes.

Objective 5: Monitor the progress of the Bord na Móna Biodiversity Action Plan:

The Biodiversity Action Plan is essentially a five year plan that will be updated in 2015. In terms of monitoring the outputs of the plan this will be carried out annually with a progress report to all consultees, and a detailed review and update of the Biodiversity Action Plan in the period 2014 to 2015.

Progress update 2012: In November 2011, the first review of the Biodiversity Action Plan was held. The progress of delivery of the objectives was outlined and the growing knowledge base was shared with stakeholders at a seminar and fieldtrip event to view a rehabilitated degraded bog area. The review was open to all consultees and there was a significant attendance by Bord na Móna managers, presenting an informal interface where peat production personnel could interact with members of wildlife interest groups and viewpoints shared and exchanged.

Targets 2012/2013: Continue to progress the aims and objectives of the Biodiversity Action Plan; review progress in November 2012.

KEY LEARNING POINTS

The Bord na Móna ecology survey is essential to understanding the current condition of all of the Bord na Móna bog areas. Bord na Móna operates largely on industrial midlands bogs, however the sites cover a considerable spread across the midlands. Clear issues can be outlined at this time:

- Future management and rehabilitation will be influenced by peat depth and type, local hydrology, local climate, adjacent land-use and national land-use policies. This is variable across the Bord na Móna bogs.
- The ecology survey has identified the main habitats that will emerge on the peat production areas once peat operations stop and we can allocate resources accordingly and identify where specific rehabilitation measures are required.
- At this point we can outline that of the area surveyed to date, up to 60% will revert to birch woodland and scrub habitats.
- Wetlands will be extensive (14%) particularly along the River Shannon bogs but in other areas these wetlands will be confined to smaller areas within a mosaic of habitats including poor fen and open water.
- Degraded raised bog and fen habitats (up to 12%) will make up a considerable portion of the future habitats and these will contribute to the national raised bog restoration and conservation management strategy.
- The Bord na Móna bogs are significant refuges for a range of species particularly birds and invertebrates, and this is likely to be the trend as more areas come out of peat production in the future.

CONCLUSIONS

The Bord na Móna Biodiversity Action Plan is viewed as an important step in setting out the lessons that have been learned already in terms of practical management and successes relating to biodiversity enhancement; and how we will proceed to plan the future of biodiversity within the Bord na Móna bogs.

REFERENCES

Farrell, C.A. (2009). Killamuck Bog Restoration Project. *Peatlands International* 2/2009.

Renou-Wilson F., Bolger T., Bullock C., Convery F., Curry J. P., Ward S., Wilson D. and Müller C. (2011). *BOGLAND - Sustainable Management of Peatlands in Ireland*. STRIVE Report No 75 prepared for the Environmental Protection Agency, Johnstown Castle, Co. Wexford.