



for birds  
for people  
for ever

# Estimating potential costs for an independent environmental protection agency in Northern Ireland

**Ian Dickie and James A. Robinson**

*The Royal Society for the Protection of Birds, Northern Ireland Headquarters, Belvoir Park Forest, Belfast, BT8 7QT, UK, email: james.robinson@rspb.org.uk*

November 2007

## Summary

- The cost of operating an independent EPA in Northern Ireland (NI) is likely to be no more than around £30 million/year, depending on the level of service and final structure.
- The upper estimate for the cost of operating an independent EPA is less than a conservative estimate of the current cost of delivering similar services within the Environment and Heritage Service (EHS): £30 million per year and £33 million per year respectively.
- A reorganisation of environmental regulation in NI to create an integrated independent EPA would enable implementation of 'Better Regulation' principles and result in a more efficient and effective system.
- The estimated cost of establishing an EPA in NI and reorganising the other elements of DOE would be no more than £13m over 4 years (approximately £4m for the EPA alone), and could be offset by efficiency gains within circa 5 years.
- The sustainable management and regulation of the environment must be seen as a contribution to the economy.
- A recent study<sup>1</sup> of the role of the natural environment in NI estimated that it currently supports 32,750 full-time equivalent jobs, with a Gross Value Added to the national economy of £573 million a year.
- Clear and consistently enforced environmental standards and efficient regulatory processes are essential to sustaining and improving quality of life for all the people in NI.
- In our analysis it would appear that a new EPA would entail little or no additional costs and deliver significant on-going benefits.
- Given that our analysis indicates that a new EPA would entail little or no additional financial costs, there would be no incentive for the new agency to increase charges for licences to fund its work.

---

<sup>1</sup> GHK (2007) *The Environmental Economy of NI*.

# 1. The benefits of changing the way we protect the environment in NI

This paper examines some of the economic issues surrounding the creation of an independent environmental protection agency (EPA) in Northern Ireland (NI). It presents analyses of the efficiency gains presented by reforming the regulatory system, and the costs of establishing and then operating a new EPA.

Before we compare the costs of change, it is worth bearing in mind that the environmental and economic benefits of changing the way we protect our environment should far outweigh the specific costs of creating a new system of protection. For example, with the resources to do its job properly, a new independent agency would be aiming to:

- Stop extinction of our local wildlife;
- Improve water quality for people and wildlife;
- Prevent illegal dumping in the countryside;
- Manage waste and regulate the waste industry;
- Control emissions to soil, water and air arising from industry and agriculture;
- Stop the destruction of valuable habitats and landscapes;
- Protect and manage our most important wildlife sites;
- Provide independent and scientifically-based advice to decision-takers and policy-makers;
- Play an important role in educating the wider public on the intrinsic, economic and social importance of environmental protection; and
- Help regulated organisations to avoid damaging the environment and to promote the benefits of improving their performance.

In addition, the next two sections demonstrate that NI cannot afford financially to fail to protect our natural heritage.

## Economic and health benefits of a well protected environment

Conserving and managing the environment is important in securing the range of benefits that the environment provides for society and the economy in NI. Environmental objectives are becoming more central to the main rural sectors such as agriculture, forestry, fisheries and tourism. The rural environment is a significant driver of employment and economic output.

A recent study<sup>2</sup> of the role of the natural environment in NI estimated that it currently supports **32,750 full-time equivalent (FTE) jobs**; with a Gross Value Added (GVA) to the national economy of **£573 million a year**. The sustainable management and regulation of the environment should be seen as a contribution to the economy.

New research is also showing that the proximity and quality of nature affects our physical wellbeing whilst 'green exercise' can reduce the costs of health care<sup>3</sup>. The health problems caused by inactivity cost the UK over £8 billion a year.

---

<sup>2</sup> GHK 2007. *The Environmental Economy of NI*.

<sup>3</sup> Bird, W. 2004. *Natural Fit: Can Green Space and Biodiversity Increase Levels of Physical Activity?* A report to the RSPB.

These statistics demonstrate that we cannot afford to continue to let our environment be destroyed or degraded.

### The threat of infraction fines

The European Commission takes strong action if a Member State does not transpose or implement Directives. Infraction fines are one way of punishing poor delivery. The Department of the Environment is currently involved with **25 cases** involving infraction proceedings by the European Commission in the areas of waste management, water quality and regulation, natural heritage and planning.

Infraction fines can be enormous and on-going. In recent years, daily penalty payments of £74,000 (UK) and £73,000 (France) per day have been sought by the European Court of Justice for non-compliance with environmental laws. In Spain, failure to comply in practice with the Bathing Water Directive in 1998 led to fines amounting to around £7 million. Under the Good Friday Agreement, liability for payment of EU penalties passed from the UK Government to responsible administrations. In other words, NI is liable for penalties unless it acts in line with EU laws.

It is time for NI to make every effort to comply with European environmental legislation, not least in order to avoid the burden of there being fines to be passed on to the taxpayer. By reforming environmental protection structures in NI, it is widely accepted that the threat of fines from Europe would be reduced. With new legislation, e.g. Soils and Marine Framework Directives, being introduced soon, it is time to be proactive about implementation rather than wait for the threat of fines.

## **2. Creating a more efficient and fair system of environmental regulation in NI**

The organisation of environmental regulation in NI would benefit from modernisation and adoption of 'Better Regulation' principles. There are aspects of environmental governance in NI that could benefit from simplification. Environmental regulators lie within a mixture of executive agencies and non-departmental public bodies controlled by three different government departments, for example:

1. The Department of Agriculture and Rural Development (DARD) controls flood defence (through the Rivers Agency) as well as agriculture, forestry and sea fisheries (in collaboration with the Loughs Agency).
2. The Department of Culture, Arts and Leisure (DCAL) controls inland fisheries and waterways.
3. The Department of Environment (DOE) controls the majority of the rest of the natural environment through the Environment and Heritage Service (EHS), the Planning Service and Local Government.

This results in an inefficient system of regulation. Firstly, those regulated have to deal with multiple regulatory bodies, creating unnecessary administration costs. Secondly, regulators can work at cross-purposes, wasting public money. While EHS is often returning underspent funds (worth between 5-9% or more of its recent annual budgets<sup>4</sup>), environmental delivery remains ineffective.

---

<sup>4</sup> DOENI presentation to Environment Committee, June 2007.

For example, the condition of many Areas of Special Scientific Interest (ASSI) remains poor (59% of habitat features are in unfavourable condition), but failure to deliver improvements to ASSI condition is often due to factors, such as land drainage, that lie outside the control of EHS. While EHS (in DoE) has overall responsibility for the EU Water Framework Directive and the condition of protected sites (ASSIs and Natura 2000 sites), the Rivers Agency (in DARD) is responsible for protecting people, built property and agricultural land from flooding. Drainage and diffuse pollution from agricultural land are major influences on the condition of protected sites. A single EPA could rationalise these environmental tasks, prioritising flood management to protect people and built property, and balancing the needs of different rural land uses (improving our environment and producing high quality food and fabric). This could be done more efficiently, involving fewer staff in a single agency, meeting clear objectives set by government departments.

The recent review of environmental governance in NI made clear recommendations on the organisation of environmental regulation. The proposals would lead to two changes:

1. Regulatory functions would be more clearly separated from policy-making functions that are rightly the responsibility of government departments.
2. Regulatory functions that currently sit in three different departments would be placed in a single agency whose focus is on carrying out those functions.

The RSPB supports the responsibility for the following regulatory functions being transferred to a new, independent environmental protection agency in NI:

- Pollution prevention and control;
- Waste management;
- Protection of species and habitats;
- Sustainable water management including abstraction and drainage licensing and river catchment management;
- Built Heritage, including archaeology;
- Sustainable Inland fisheries;
- The regulatory functions of Fisheries Conservancy Board the Loughs Agency and the Rivers Agency; and
- In-house legal expertise on regulatory enforcement.

These changes are clearly in line with the findings of the Hampton review<sup>5</sup> of the UK's regulatory system, which suggested simplified regulatory structures. They would result in a simpler and more efficient regulatory system because:

- Environmental regulations that are currently the responsibilities of three different departments would become the responsibility of a single agency;
- Departments would focus on making policy and legislation; and
- An EPA would focus on implementing regulations and other policy (e.g. public information, voluntary agreements) free from political interference, (i.e. concentrating on *how* to regulate efficiently).

---

<sup>5</sup> Hampton (2005) *Reducing Regulatory Burdens*. Report to HMT.

### Better Regulation

The principles laid out in the Hampton Review, and the Macrory report<sup>6</sup> on regulatory justice, are concerned with HOW to regulate. This is the main aspect of the 'Better Regulation' agenda for regulators. The other side of 'Better Regulation', of main concern for legislators, is WHETHER to regulate. This focuses on whether the same environmental (or other) outcomes can be achieved with less overall regulatory effort (either by regulators, or by those being regulated).

The latest developments in the 'Better Regulation' agenda include a Cabinet Office consultation on a regulators code of conduct, and a Department of the Environment, Food and Rural Affairs (DEFRA) review of environmental enforcement. A new NI EPA would be well placed to learn from this work, being able to implement a modern regulatory culture based on best practice, for example as defined in the proposed code.

One aspect of best practice is to manage the balance between the burden of administering regulations, and the penalties for non-compliance. This should be supported by in-house expertise for legal enforcement at the EPA. This expertise would help draw the distinction between serious intentional breaches of regulations, which deserve to be treated as criminal offences, and accidental breaches or non-compliance, that can be more efficiently dealt with outside of criminal institutions (e.g. through a tribunal system).

Higher fines for non-compliance can be used to maintain an effective deterrent and complement a lighter-touch, risk-based approach to regulation (i.e. involving less frequent or self-inspections). Such a regime can maintain or increase the overall probability of facing a fine from non-compliance (particularly intentional non-compliance), without increasing administrative burdens. This can involve a change in the purpose of regulatory charges and non-compliance fines. Fines need to be determined to act as deterrent, with judicial guidance to ensure fines are set at sufficient level to do so.

These changes can produce a fairer system, reflecting the 'polluter pays' principle in regulatory practice:

- Those complying with environmental standards will face reduced costs;
- Those accidentally breaching regulations are dealt with in a non-criminal system (which results in lower costs to all parties), and are charged in proportion to the costs of monitoring and remedying their non-compliance; and
- Those intentionally breaching regulations can face criminal proceedings and penalties that act as an effective deterrent.

### **3. Using the costs of environmental agencies in the UK to estimate the costs of a NI environmental protection agency**

This section looks at two aspects of the costs of an NI EPA:

1. the costs of operating the new agency, and
2. the costs of establishing it.

---

<sup>6</sup> Macrory (2006) *Regulatory Justice: Making Sanctions Effective*.

### 3.1. Estimating operating costs

This section provides figures on the operating costs of English Nature (EN), the Environment Agency (EA), the Countryside Council for Wales (CCW), Scottish Natural Heritage (SNH), and the Scottish Environment Protection Agency (SEPA). These are compared to EHS in NI. The data are normalised according to country populations and areas.

These agencies' annual expenditures are not easily comparable. They comprise different services and functions, and their jurisdictions have varying population densities and environments. For example, the EA has responsibility for flood risk management for extensive areas of densely populated low-lying coastline in the south of England. It covers both England and Wales, but England has more than two and a half times as many people per square km than Wales, about three times more than NI and six times more than Scotland (Table 1).

Table 1. Population sizes, land areas and population densities of countries in the UK

	Population	Area (ha)	Density (persons/ha)
NI	1,690,000	13,843	122
England	49,290,000	130,423	388
Scotland	5,123,000	78,313	65
Wales	2,970,000	20,755	141

Despite all these differences, the costs of these agencies do provide a set of benchmarks to estimate how much it would cost to operate a similar agency in proportion to NI's population and area (Table 2).

Table 2. The financial and staff resources of environmental agencies in the UK

Estimated resources for existing UK agencies (latest figures)		
	Estimated Government Grant £m/year	Staff
EA	602.1	13,114
EA (minus flood defence)	197	Not available
EN*	68.6	917
SEPA	34.1	1,144
SNH	58.5	761
CCW	64.4	585

\*see text

The main cost comparison is based on the grant in aid from Government. This represents the cost to taxpayers, but could mask variations in incomes that cross-subsidise publicly funded activities. The

analysis does not imply any judgement as to whether the levels of resources received by these organisations are adequate in relation to their functions. However, the variations in environmental activities between years are substantial, and other exceptional items (e.g. transfers of pensions liabilities) have been removed where possible.

Unfortunately, latest reports from the different agencies are not all from 2005-06. This partly reflects the latest accounts available, but is also due to English Nature’s transition into Natural England (NE). This analysis does not use NE data, as it would include functions currently undertaken by DARD in NI (administering rural payments) and would reflect the costs of re-organisation.

Extrapolating the costs of other environment agencies in the UK with respect to NI population and area, gives an indication of how much would it cost to manage a NI EPA (Table 3).

*Table 3. Predicted expenditure for an environmental protection agency in NI (shaded boxes represent integrated models similar to that proposed for a NI EPA).*

	Predicted expenditure £m/year for a NI EPA based on existing UK agencies (Based on most recent data, July 2007)					
Extrapolating from NI:	EN	EA*	EN+EA* +CCW	SNH	SEPA	SNH + SEPA
Population	2.4	6.4	10.7	11.3	19.3	30.5
Area	7.3	18.0	30.2	6.0	10.3	16.4

\*Exclude EA flood defence budget.

The Environment and Heritage Service (EHS) in NI made expenditure of £63.5 million in 2005-6<sup>7</sup>. Although its grant from Government is not defined in the accounts, its net cost of running its operations was £61.2 million, involving 790 employees. A proportion of this corresponds to the Built Heritage Directorate of EHS. In terms of central costs, this proportion is 10-15%<sup>8</sup>, but to be conservative 20% is assumed. Therefore, for meaningful comparison, the current costs of Environmental Governance in NI are estimated at £49.0 million/yr.

The most useful comparisons for costs of running an independent EPA in NI are based on amalgamations of the EA, EN and CCW, and of SEPA and SNH (both shaded grey above). These suggest that the costs are likely to be no more than around £30 million/yr, depending on the level of services and final structure. The costs of a specialist biodiversity or natural heritage agency are much lower – comparison to English Nature and SNH suggest, on average, costs of around £7m/yr.

<sup>7</sup> EHS annual report, 2005-06.

<sup>8</sup> EHS accounts do not separate the costs for BH Directorate in all areas. In the two that do, BH accounts for between 7-9% of the costs (for grants), and 13-18% of the costs (for programmes), making 10-11% of all costs in these two area combined. As programme activity considered is a better indicator of the allocation of other costs (like overheads and staff) we give a range of 10-15% of EHS costs relate to BH.

In addition to the functions of the other UK agencies, EHS includes some departmental functions currently undertaken by DEFRA, the Welsh Assembly Government, and the Scottish Executive. However, when calculating the additional costs of a NI EPA, existing expenditure on environmental governance must be taken into account.

To assess the resources available within EHS for a new EPA, we would:

- Remove an estimated 20% of the EHS budget to cover the costs of built heritage, (giving £49m/yr as above),
- Allocate 1/3 of the remaining costs to cover ongoing central government department environmental functions (reducing the figure by £16.2m/yr)<sup>9</sup>.

This leaves £32.8m/yr, equivalent to the upper end of the cost estimates derived above through population and area comparison SNH and SEPA in Scotland, and CCW, EN and EA in England and Wales. Our conclusion is that reallocating the resources currently used for equivalent functions within EHS would broadly cover the costs of operating an independent EPA in NI. In other words, **a new EPA would entail little or no additional operating costs.**

Given that a new EPA would entail little or no additional financial costs, **there would be no incentive for the new agency to increase charges for licences to fund its work.** We hope this will appease those who are concerned that the costs of an EPA could impact on this business.

The regulatory functions of a new EPA, defined above, involve some activities that are additional to the remits of the Scotland and England and Wales Agencies given above. However, they are also additional to the calculation of likely resources above. The main areas are:

- Built heritage and archaeology (for which 20% of EHS's budget was removed);
- Flood defence: currently operated through the Rivers Agency in DARD with a budget of £22m/yr. In transferring responsibility for operational functions, there would also be a corresponding transfer of resources from DARD; and
- Inland waterways and fisheries: currently operated by DCAL with a budget of £2.9m/yr<sup>10</sup>. Similarly, there should be a transfer from DCAL.

These figures are not being added to those estimated for the EPA from EHS activity above, because the comparisons to England and Wales excluded flood defence spending, as this is heavily dependent on local coastal and river morphology.

### **3.2. Estimating establishment costs**

The best available comparison to estimate the costs of establishing an NI EPA is the recent establishment of Natural England (NE). NE was formed by amalgamating English Nature, the Countryside Agency and the Rural Payments Agency (formerly part of DEFRA). A new Commission for Rural Communities (CRC) was established alongside NE.

---

<sup>9</sup> This figure has been estimated because we do not have an accurate breakdown of these functions.

<sup>10</sup> <http://www.pfgbudgetni.gov.uk/pfgfulldoc0608.pdf>

DEFRA<sup>11</sup> estimated the total financial cost of establishing NE and the CRC (including Countryside Agency redundancies and relocation of the Commission) at between £33 million and £48 million over the period 2004/05 and 2008/09. Whilst considerable one-off costs will be incurred up-front, annual efficiencies from NE and the CRC are forecast to reach £11.3 million by 2007/08.

Therefore, the creation of NE is expected to have paid for itself through efficiency savings within c.5 years. Annual efficiencies from the overall 'Modernising Rural Delivery' programme (of which NE and the CRC form a significant part) are forecast to reach £21 million a year by 2009/10. It is estimated that this overall change programme will pay for itself within two to three years of its conclusion in 2007, and deliver major savings beyond this period.

Legislation to establish NE was passed through the NERC<sup>12</sup> Bill. The Regulatory Impact Assessment which accompanied the Bill identified costs relating to operating the new organisation. As part of the 'Modernising Rural Delivery' programme, the costs of implementing NE were estimated at £26-37m<sup>13</sup>. These costs were expected to arise over c.4 years, with the majority occurring in year 1. They were made up of:

- £14-16m: IT systems;
- £7-10m: estates rationalisation (leaving and moving in);
- New identity: £1-2m;
- Training: £1.2-2.4m;
- Redundancies: £1.5-3.8m (these are high given that separate organisations and their associated support mechanisms were merged in NE);
- New ways of working: £0.9-2.4m; and
- New board: £0.5m.

These costs need to be put in the context of the scale of the bodies being re-organised, which had combined annual operation costs of over £200m<sup>14</sup>. Therefore, the establishment cost of c. £32m is equivalent to up to 15% of their annual turnovers. This cost was spread over 4 years, but was front-loaded. The costs of establishing an integrated NI EPA can be estimated by taking an equivalent proportion of the turnovers of the organisations that could be merged into a new EPA in NI or may need to be reorganised within central government (we are assuming that the economies of scale are the same for the NI and England situations):

- Flood defence budget £22m/yr (currently through the Rivers Agency in DARD controls).
- Inland waterways and fisheries budget £2.9m/yr<sup>15</sup> (currently through DCAL).
- DoE controls the rest of the environment through EHS, and Planning Service, Local Government and Road Safety (total turnover c. £63m).

---

<sup>11</sup> <http://www.defra.gov.uk/rural/ruraldelivery/bill/faqs.htm#15>

<sup>12</sup> Natural Environment and Rural Communities Act:

<http://www.defra.gov.uk/rural/ruraldelivery/bill/default.htm>

<sup>13</sup> <http://www.defra.gov.uk/rural/pdfs/ruraldelivery/bill/20051012ria.pdf>

<sup>14</sup> Countryside Agency turnover in 2004/05 was £114m (<http://www.official-documents.gov.uk/document/hc0506/hc03/0374/0374.pdf>); English Nature's turnover was £82m; and the rural payments agency was transferred from within Defra.

<sup>15</sup> <http://www.pfgbudgetni.gov.uk/pfgfulldoc0608.pdf>

The total turnover of these functions is approximately £88m/yr. If costs of establishing an EPA and reorganising the rest of DOE are 15% of this, in line with the proportion of turnover for the bodies forming NE, this would be at the very most £13m over 4 years (approximately £4m for the EPA alone). As with NE, this would be heavily front loaded, and could be offset by efficiency savings with c. 5 years.

#### **4. Contributing to the debate**

We understand the DOE has been charged by the Minister for the Environment with identifying the costs of creating an independent EPA and that this will inform the Northern Ireland Executive's decision on whether to create such a body. This paper has been prepared to contribute to the DOE's analysis and demonstrates that the financial benefits of creating an EPA should far outweigh the costs, financially as well as environmentally.

Measuring the costs and benefits of creating an EPA, both in the short and long term, should be the focus of the DOE's analysis. The DOE's analysis should also investigate any peculiarities in the NI situation that could impact on the costs of creating a new agency, something that is outside the focus of this paper. For example, we have had to estimate some of the costs allocated to certain services and functions, especially those associated with those that would be transferred to central government. We look forward to seeing the results of the DOE's deliberations and a positive decision by the Executive.

## ANNEX 1. BACKGROUND DATA

### Expenditure in the Environment and Heritage Service (EHS), 2000/01-2005/06

EHS	2000-2001	2001-2002	2002-03 (*)	2003-2004	2004-2005	2005-2006	Average
Expenditure	£29,542,000	£33,661,000	£39,662,000	£51,255,000	£51,569,000	£61,461,000	£44,525,000
Staff	371	428	555	645	751	790	590
£ / staff	£79,628	£78,647	£71,463	£79,465	£734,446	£77,799	£75,945
£ / hab	£17.4805	£19.9178	£23.4686	£30.3284	£326.3722	£36.3675	£26.346
£ / sq Km	£2,134	£2,432	£2,865	£3,703	£39,845	£4,440	£3,216

(\*) Over 100 new staff joined EHS as a result of transfer of laboratory services from DETI, Lisburn.

### Expenditure in English Nature (EN), 2001/02-2004/05

	2001-02	2002-03 (*)	2003-2004	2004-05	Average (+)
Expenditure	78,534,000	168,863,000	82,386,000	81,600,000	80,095,750
Staff	788	849	920	917	868.50
£ / staff	99,662.4	198,896.3	89,550.0	88985.8	119273.7
£ / hab	1.59	3.43	1.67	1.66	2.09
£ / sq Km	602.1	1294.7	631.7	625.7	788.6

(\*) - includes £91,000 for pensions bulk transfer (not present in other years)

(+) – without 2002-03

### Expenditure in Scottish Natural Heritage (SNH), 2002/03-2003/04

	2002-03	2003-2004	Average
Expenditure (£ 000)	57,632,000	58,526,000	58,079,000
Staff	746	754	750
£ / staff	77254.7	77620.7	77438.7
£ / hab	11.2	11.4	11.3
£ / sq Km	735.9	747.3	741.6

### Expenditure in the Scottish Environment Protection Agency (SEPA), 2001/02-2003/04

	2001-2002	2002-03	2003-2004	Average
Expenditure (£ 000)	40,310,000	43,929,000	49,822,000	44,687,000
Staff	874	953.5	1010.8	946.1
£ / staff	46,121	46,071	49,290	47232.9
£ / hab	7.87	8.57	9.73	8.72
£ / sq Km	515	561	636	570.62

### Expenditure in the Environment Agency (EA), 2006/07

Environment Agency annual report and accounts 2006-07 (FD = Flood defence).

	EA 2006-07	EA (FD)	EA - FD
exp	1,064,600,000		
govt grant	602,100,000	405,100,000	197,000,000
staff	13,114		

## **Expenditure in Countryside Council for Wales, 2004/05**

CCW budget 2004/5 £56.5m Countryside Council for Wales, Corporate Plan 2005-08.

CCW budget for 2007/08 £42.5m, grant in aid was £40,822,000. Countryside Council for Wales, Business Plan 2007-08.

Sources:

<http://www.information.wales.gov.uk/content/decisionreports/economics/public/consequential%20reductions%20in%20the%20ccws%20budget%20following%20the%20transfer%20of%20the%20tir%20gofal%20agri-environment%20programme%20to%20the%20welsh%20assembly%20government.rtf>