
National Waste Prevention Programme

Annual Report 2007/2008



Environmental Protection Agency

The Environmental Protection Agency (EPA) is a statutory body responsible for protecting the environment in Ireland. We regulate and police activities that might otherwise cause pollution. We ensure there is solid information on environmental trends so that necessary actions are taken. Our priorities are protecting the Irish environment and ensuring that development is sustainable.

The EPA is an independent public body established in July 1993 under the Environmental Protection Agency Act, 1992. Its sponsor in Government is the Department of the Environment, Heritage and Local Government.

OUR RESPONSIBILITIES

LICENSING

We license the following to ensure that their emissions do not endanger human health or harm the environment:

- waste facilities (e.g., landfills, incinerators, waste transfer stations);
- large scale industrial activities (e.g., pharmaceutical manufacturing, cement manufacturing, power plants);
- intensive agriculture;
- the contained use and controlled release of Genetically Modified Organisms (GMOs);
- large petrol storage facilities.

NATIONAL ENVIRONMENTAL ENFORCEMENT

- Conducting over 2,000 audits and inspections of EPA licensed facilities every year.
- Overseeing local authorities' environmental protection responsibilities in the areas of - air, noise, waste, waste-water and water quality.
- Working with local authorities and the Gardaí to stamp out illegal waste activity by co-ordinating a national enforcement network, targeting offenders, conducting investigations and overseeing remediation.
- Prosecuting those who flout environmental law and damage the environment as a result of their actions.

MONITORING, ANALYSING AND REPORTING ON THE ENVIRONMENT

- Monitoring air quality and the quality of rivers, lakes, tidal waters and ground waters; measuring water levels and river flows.
- Independent reporting to inform decision making by national and local government.

REGULATING IRELAND'S GREENHOUSE GAS EMISSIONS

- Quantifying Ireland's emissions of greenhouse gases in the context of our Kyoto commitments.
- Implementing the Emissions Trading Directive, involving over 100 companies who are major generators of carbon dioxide in Ireland.

ENVIRONMENTAL RESEARCH AND DEVELOPMENT

- Co-ordinating research on environmental issues (including air and water quality, climate change, biodiversity, environmental technologies).

STRATEGIC ENVIRONMENTAL ASSESSMENT

- Assessing the impact of plans and programmes on the Irish environment (such as waste management and development plans).

ENVIRONMENTAL PLANNING, EDUCATION AND GUIDANCE

- Providing guidance to the public and to industry on various environmental topics (including licence applications, waste prevention and environmental regulations).
- Generating greater environmental awareness (through environmental television programmes and primary and secondary schools' resource packs).

PROACTIVE WASTE MANAGEMENT

- Promoting waste prevention and minimisation projects through the co-ordination of the National Waste Prevention Programme, including input into the implementation of Producer Responsibility Initiatives.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE) and Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

MANAGEMENT AND STRUCTURE OF THE EPA

The organisation is managed by a full time Board, consisting of a Director General and four Directors.

The work of the EPA is carried out across four offices:

- Office of Climate, Licensing and Resource Use
- Office of Environmental Enforcement
- Office of Environmental Assessment
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet several times a year to discuss issues of concern and offer advice to the Board.



The National Waste Prevention Programme

Fourth Annual Report 2007/2008

Presented to

the Minister for the Environment, Heritage & Local Government

October 2008

Acknowledgements

I would like to acknowledge the following for assisting in the ongoing development and implementation of the National Waste Prevention Programme:

- The Department of the Environment, Heritage & Local Government for providing finance from the Environment Fund and for their ongoing support and advice;
- All members of the National Waste Prevention Committee who have provided their time and collective knowledge to the programme;
- The Board of the EPA for providing ongoing encouragement and support;
- The Core Prevention Team: Brian Meaney, Andy Fanning, Caitriona Collins, Fiona McCoolle, Martin Doyle, Odile Le Bolloch, Jennifer Cope, David Dodd, Isabelle Kurz, Keiron Phillips, Jane Kenneally, Michael McDonagh, Celine Horner, Brian Quirke, Helen Searson, Marian Lambert and Deirdre Murphy for their dedicated professionalism in devising, developing and implementing the projects described in this report;
- All other stakeholders, organisations and persons who helped in any way with this important initiative.

To all of the above, my most sincere thanks.

Gerry Byrne, BA (Mod), PhD, MBA.
(Chairman, National Waste Prevention Committee)

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1. Executive Summary

Waste prevention and resource efficiency are important strategic issues for Ireland and the EU to manage in order to move towards more sustainable and competitive growth. It is anticipated that measures contained in the Proposal for a Revision to the Waste Framework Directive will require all Member States to develop and implement national waste prevention programmes over the coming years. The Agreed Programme for Government 2007 includes a statement that “*the Government will establish new ambitious waste management targets for maximum prevention, re-use, recycling and modern waste treatment.*” The ultimate objectives of waste prevention are to achieve verifiable results in reversing current trends in waste production, stabilising waste arisings and decoupling the environmental impacts of waste generation from economic growth by maximising resource use efficiency. These objectives will require concerted effort by all relevant players in society, deploying appropriate resources over many years to ensure they are achieved.

Commitment to a National Waste Prevention Programme (NWPP) was made in the Government policy document “*Preventing and Recycling Waste - Delivering Change*” published in March 2002. In 2004, the Environmental Protection Agency (EPA) was nominated to develop and lead the National Waste Prevention Programme. A Core Prevention Team, appointed from experienced staff already working in the waste management area within the EPA, has been working since then on the wide variety of waste prevention and producer responsibility projects as outlined in this report. The Core Prevention Team is also responsible for complementary work on the annual National Waste Reports and monitoring the implementation and review of the National Hazardous Waste Management Plan. To date, almost €8 million has been expended or committed to these projects.

A National Waste Prevention Committee is continuing to oversee the development and implementation of the programme. It is chaired by the EPA and comprises a wide range of stakeholders from industry, commerce, agriculture, local authorities, non-governmental organisations and Government Departments (see Appendix A). Terms of Reference were established for the committee (see Appendix B) that includes the work done previously by the National Hazardous Waste Management Plan Implementation Committee. Members of the committee provide valued assistance with Tender Selection and Project Advisory Groups for many of the National Waste Prevention Programme projects. In addition, they provide important strategic input to the main Committee meetings. The Agenda and Minutes of all Committee meetings held to date are posted on the NWPP webpages (see www.nwpp.ie).

The National Waste Prevention Programme seeks to build on the success of existing and previous initiatives aimed at promoting the sustainable use of natural resources. The objective as stated in the policy is to establish an ambitious and well-resourced programme to deliver substantive results on waste prevention and minimisation across both hazardous and non-hazardous waste arisings.

Figure 1 gives a diagrammatic representation of some of the influencing relationships involved. Extensive contacts are being made on an ongoing basis with all relevant stakeholder organisations in order to share learning and experiences and to involve them in the development and implementation of waste prevention/resource efficiency projects, as appropriate. In more economically challenging times, it is more

important than ever that all organisations, whether in the private or public sector, should look to improving their own resource use efficiency.



Figure 1 – Stakeholders in relation to the National Waste Prevention Programme

This report provides an overview of the progress made in 2007/8 on a wide variety of integrated projects focussing on waste prevention during the fourth year of the programme. In the period under review:

- The national Local Authority Prevention Demonstration Programme was consolidated to provide capacity for prevention projects to be implemented locally across the country;
- The Green Hospitality Awards project has grown strongly since its launch early in 2008;
- A Green Business Initiative was launched including web-based resource efficiency/Waste Audit tools;

- The team has continued to work closely with Repak to implement a Packaging Waste Prevention Programme;
- An Taisce has been granted continued assistance to deliver a third phase of the Green Homes programme;
- Certified Training in Waste Prevention for business and public authorities has continued to be promoted;
- Consultation on the National Hazardous Waste Management Plan was completed and the new plan was published. This includes detailed recommendations on prevention and collection of hazardous waste;
- Extensive work has been completed on implementing complementary legislation in relation to Polychlorinated Bi-phenyls, Persistent Organic Pollutants, Ozone Depleting Substances, Deco-paints and Solvents Regulations (including significant prevention aspects);
- Continued progress has been made on a number of Producer Responsibility Initiatives including enforcement of the Waste Electrical and Electronic Equipment (WEEE) and Restriction of Hazardous Substances (RoHS) Regulations which incorporate statutory reuse and eco-design requirements, respectively.
- The National Waste Report for 2006 was published.

All prevention projects have ongoing regard to the conservation not just of material resources, but also of water and energy. Similarly, projects have particular regard to the urgent need to prevent or divert biodegradable waste from landfill as provided for in the National Strategy on Biodegradable Waste.

Finally, the strategic future direction for the waste prevention programme is outlined. In the years to come, it is anticipated that these nascent waste prevention projects, in conjunction with other integrated national waste management initiatives, will yield important results. This will require that appropriate resources are available and that relevant stakeholders respond positively to the challenges presented to them. The Core Prevention Team will continue to work with all relevant players to promote the ongoing development of a culture of waste prevention and resource efficiency in Irish society. This in turn should nurture more sustainable production and consumption.

2. Overview of Waste Prevention

NWPP Outline Work Plan 2004 to 2008

The EPA published a proposed outline multi-year prevention programme at commencement of the National Waste Prevention Programme with indicative project activities listed. Many of these activities have since commenced and are detailed in this report. Activities including consultation with stakeholder groups, collation of available case studies for dissemination and development of tools to enable organisations to undertake waste audits are all ongoing (see Green Business Initiative). However, while baseline research studies have not progressed as originally envisaged following review, target sectors have been identified for further prevention efforts on foot of other research information. These include sectors generating hazardous waste (see National Hazardous Waste Management Plan) and the hotels and health-care sectors (see Green Business Initiative). The National Waste Report has been incorporated into the NWPP as indicated in the plan and a report has been published every year since. Development of an electronic information management system for the collection of some waste statistical returns is underway. The definition of waste prevention proposed by the ERTDI Waste Prevention Framework was discussed at Committee and adapted.

Define Waste Prevention as*:

“Elimination or reduction at source of material, water and energy consumption, waste arisings (solid, liquid, gaseous and heat) and harmful substances”

* Based on a definition provided in the ERTDI Waste Prevention Framework

Indicators and targets for waste prevention are more easily developed in relation to projects initially and later to sectors as practical prevention experience is gained (e.g. in relation to hotels under Green Business Initiative). Considerable contributions have been made within NWPP to producer responsibility initiatives especially WEEE, RoHS, Packaging, Solvents, Deco-paints and Batteries.

Overall, with experience and the finite resources available, it has taken longer than originally anticipated to invent projects particularly in relation to annual waste audits for businesses. However, the roll out of the greenbusiness.ie project has now filled this gap. On the other hand, significant new opportunities were developed to further waste prevention, which were not originally identified in the plan. These include the Local Authority Prevention Demonstration Programme (LAPD) and the Green Home project.

A replacement outline programme is being developed as a Prevention Plan 2009 - 2012. Outline ideas have been discussed with the Committee and a draft document drawn up. This is being discussed with stakeholders at time of writing.

ERTDI Waste Prevention Framework

The NWPP Outline Work Plan was based in part on the EPA/ERTDI Waste Prevention Framework document published in 2004. Ten national priority actions were identified in the framework many of which are now underway. These included:

- Prioritisation to be given by Government, industry/commerce and the general public to waste and consumption issues;
- Adequate resources to be provided including the setting up of a Core Prevention Team (CPT) and steering group;
- Development of a prevention strategy and waste prevention audits is recommended;
- Technical support services on prevention for business and training/research programmes are proposed also.

Many of the NWPP projects detailed in this report address these recommendations. Other suggestions not within the control of the CPT include differentiated charges for separately collected waste and other environmental charges or levies.

Additionally, ten actions were identified by the framework document for the CPT. These included:

- Development and dissemination of a waste prevention strategy for Ireland;
- Legislatively based audit and waste reduction planning;
- A technical support agency is recommended;
- Training in Prevention.

Implementation of the original prevention programme is ongoing and a replacement outline programme is currently being developed as a Prevention Plan 2009-2012. Audit tools are being piloted as part of the greenbusiness.ie project. Experience with business take-up of the audits will indicate if regulatory backing is needed for implementation for example as applied in the Solvents/Deco-paints sectors. Technical support is being provided by the Clean Technology Centre for the LAPD programme and the Green Hospitality Award (along with Hospitality Solutions Ltd) and by Enviros Consulting Ltd for greenbusiness.ie. As recommended, training programmes on prevention have been set up for local authorities and for businesses as well as a certified programme specifically on packaging prevention.

Research on waste prevention will remain a focus of NWPP with more fundamental investigations being co-ordinated by the new EPA STRIVE research programme. The framework recommends building on the National Waste Report to improve knowledge of waste flows in Ireland. This challenge has been undertaken by publishing an annual report on waste arisings as well as undertaking detailed waste characterisation research. Green procurement programmes are recommended and these are to be addressed by the Market Development Group. Waste prevention awareness campaigns were addressed through the original Race Against Waste campaign and ongoing NWPP project publicity. Environmental grants schemes are in place developed as part of the local authority programme while some grants are also available from Enterprise Ireland.

Proposal for a Directive on Waste

In 2008, a proposal for a new Directive of the European Parliament and of the Council on Waste was advanced. The draft document states that Member States shall establish national waste prevention programmes setting out appropriate objectives and measures. These shall be aimed at breaking the link between economic growth and the environmental impacts associated with the generation of waste. It is noteworthy that the aim is not to try to reduce gross waste arising. The programme shall determine appropriate specific qualitative and quantitative benchmarks, targets and indicators for waste prevention measures. However, no specific targets or indicators were agreed at EU level at time of writing. Annex IV to the document provides examples of waste prevention measures, which need to be evaluated for usefulness. These include planning measures, research on cleaner processes/products and indicators of environmental pressures associated with waste generation. Promotion of eco-design, information provision on waste prevention/best available techniques for industry and inclusion of waste prevention requirements in IPPC permits are recommended. Waste assessments and prevention plans for non-IPPC installations, awareness/supports for business, sectoral agreements and environmental management systems are all required to be considered. Economic instruments, eco-labels and public awareness, green procurement and the promotion of repair/reuse are also listed. However, it will be a number of years before these requirements come into effect.

Many of these ideas are being already being implemented and others will be considered in the context of the development of the Prevention Plan 2009-2012. The plan will be published following consultation in 2008. It is anticipated that co-operation in time between Member States with their respective waste prevention programmes will result in useful synergies for example in relation to packaging waste prevention which is a trans-national issue.

Agreed Programme for Government 2007

The Programme for Government commits to an international review of waste management plans, practices and procedures including prevention. The programme also commits to establishing new ambitious waste management targets for maximum prevention, re-use, recycling and modern waste treatment to ensure that we match the best performance in the EU for recycling with the objective that only 10% of waste or less is consigned to landfill. Additionally, commitment is given to the implementation of the National Strategy on Biodegradable Waste, which aims to divert 80% of biodegradable waste from landfill through segregated collection and generation of compost. Commitment is given as well to the introduction of household hazardous waste collection in all suitable recycling centres. The implementation of the National Waste Prevention Programme endeavours to contribute to the achievement of many of these objectives.

Sustainable Resource Use, Consumption and Waste

As part of its communications programme, the Core Prevention Team prepared a chapter for the State of the Environment Report 2008 entitled "Sustainable Resource Use, Consumption and Waste". This provides a strategic overview of the issue of resource use efficiency in Ireland.

This publication notes that the product or service life-cycle chain from extraction, production, consumption and waste all contribute to emissions and impact on the natural environment (Figure 2). Based on life-cycle analysis, the sectors causing greatest environmental impact include energy and water supply, transport, mining and construction as well as agriculture. Household consumption is considered particularly important as millions of consumers make decisions relating to which, and how much, of different products and services to consume. Consumption of food and drink, housing, personal travel and mobility as well as tourism are all having growing impacts on the environment. Overall, waste generation and resource use are at unsustainably high levels in Ireland, having increased in tandem with economic and population growth.

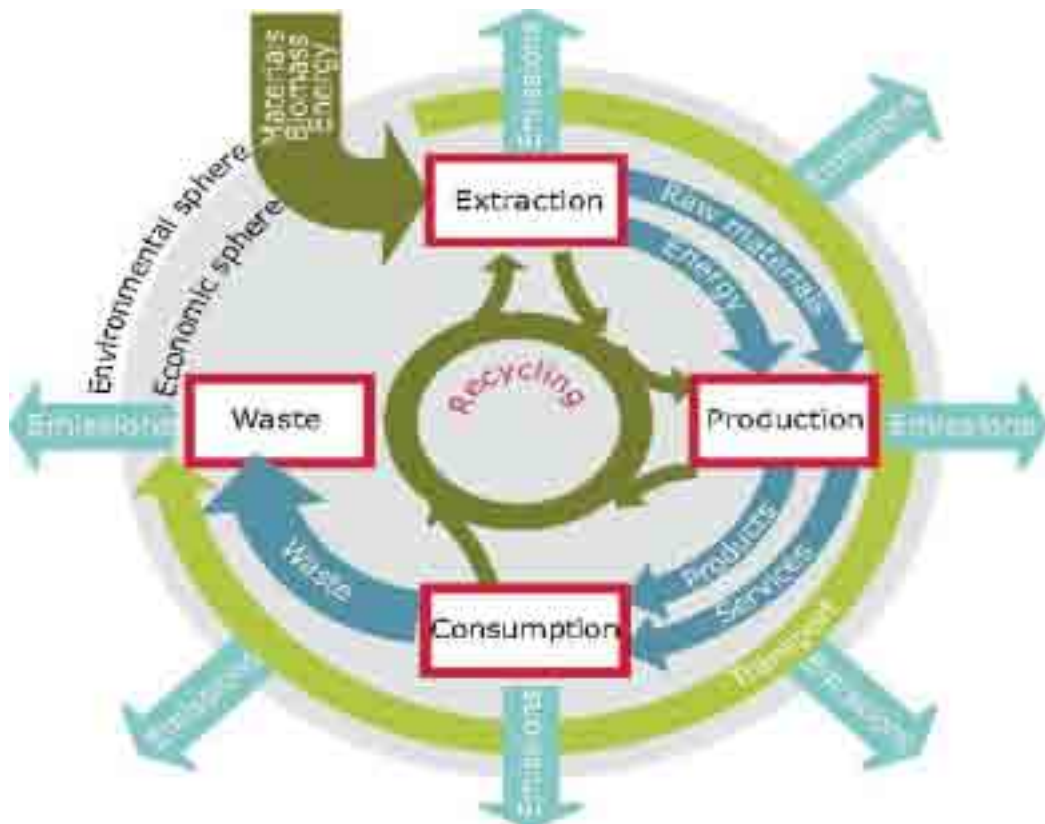


Figure 2 Interaction between the Economic and Environmental spheres: Life-cycle chain from Extraction through Production to Consumption and Waste (Source: EEA, 2007)

Preventing waste is preferable to managing it and is at the highest point in the EU waste hierarchy. Reducing the use of resources will reduce waste generation, energy/water use, transport impacts and all consequential environmental upstream and downstream impacts. Generally, prevention can be achieved either by reducing the overall demand for goods and services; or, by using less, or at least less harmful, resources and materials to meet reasonable human needs. Prevention also seeks to reduce emissions, reduce harmful substances in material streams and their

dissipation, and to improve resource efficiency throughout the life-cycle of a product or service (Figure 2). Therefore, prevention will always have a particular focus on hazardous waste minimisation and treatment.

The increased use of resources in the economy now will inevitably lead to the increased generation of waste at some point in the future. Some resources consumed in the economy add to durable material stock (houses, infrastructure etc). However, virtually all materials used eventually become waste, whether this takes place within days (e.g. food packaging), years (e.g. electrical equipment) or decades (e.g. buildings refurbishment, redevelopment) of consumption. Achieving prevention in practice is considered particularly challenging as, in a similar way to climate change, societal behavioural changes are needed now with few immediately tangible benefits apart perhaps from some cost savings. Implementing waste prevention, producer responsibility and integrated product policies in an increasingly competitive and globalised free-market economy is an ongoing challenge for all stakeholders.

3. National Waste Prevention Programme: Prevention Projects

Green Public Authority: The Local Authority Prevention Demonstration (LAPD) Programme

To date, there are 14 local authorities participating in the Local Authority Prevention Demonstration (LAPD) Programme, which was launched in July 2006. The aim of LAPD is to assist local authorities to design and implement local integrated waste prevention programmes and projects. Assistance is provided by way of direct technical expertise (from the Clean Technology Centre, Cork Institute of Technology) and grant monies to increase capacity in waste prevention locally. In many instances, local authority staff have been specifically seconded to work on prevention projects. In total, 27 local authority staff have been directly involved in the projects. The idea is to develop capacity in local authorities such that their staff can in turn enable organisations, including their own, to prevent waste. This should be done on a systematic audit/review-plan-act-review iterative cycle. Further information is available at www.lapd.ie and www.ctc-cork.ie/lapd.

Ongoing projects include prevention in community, commercial and business organisations such as shopping centres, a regional airport, construction, farms, university, public organisations and schools. Other projects underway include prevention initiatives in a town centre, at three public swimming pool facilities, public buildings, an offshore island, a major retail outlet, on four farms and a university campus. Best practice case studies and prevention data/know-how are now emerging from each project for dissemination and implementation throughout the country. Overall, over 153 businesses have been contacted and 96 engaged with directly on prevention. Over 295 waste audits have been completed and 1,300 people attended over 20 different events organised to discuss the prevention projects. Prevention themed posters were developed to promote the message widely.

Examples of projects include:

- Dundrum Shopping Centre has reduced waste charges by an estimated €168,000 annually following a waste audit and the introduction of improved practices. Food waste is the next target here (30% reduction) with trials on an on-site composter already commenced.
- Hospitals in Monaghan are saving over €21,000 each year after improving waste management practices and avoiding mixing hazardous with non-hazardous waste. An additional €8,300 is being saved annually after significant water losses, which only came to light during the waste audit, were stemmed.
- Cost savings were realised at Kerry Airport where avoidable water losses were also identified amounting to over €5,000 per annum.
- A survey of seven municipal buildings in Roscommon showed that almost 146 thousand kWh of electricity (costing €24,192 and equivalent to 93,655 tonnes carbon) could be saved by switching off non-essential computers, printers, monitors, photocopiers and lights after-hours.
- One farmer is saving €37,000 per annum by installing a rainwater harvesting system while another is saving €1,800 per year simply by changing to bulk buying of feed (also avoiding the disposal of 244 Kg/year of plastic bags). On

the basis of prevention work carried out at a number of farms in Monaghan/Longford, a best practice guide was published in August 2008 for widespread dissemination in the sector in collaboration with the Irish Farmers Association and Teagasc. This publication received widespread coverage in the print media and was the subject of a broadcast radio interview.

Regional Plenary Meetings involving all participants in the LAPD programme have been held to share learning and experiences with the implementation of prevention projects. A two-day National Conference to highlight emerging prevention case studies and the achievements of the programme was held in February 2008. A customised and accredited training programme on waste prevention has been developed for dissemination to all local authorities. The programme commenced in November 2007 and to date 17 local authority personnel have undertaken this training. These ongoing activities should ensure that prevention learning and techniques emerging from the pilot projects will be applied widely in Ireland. A lively website has been developed by the Clean Technology Centre to promote and support the project including an intranet section for the use of participants (see www.ctc-cork.ie/lapd).



Mr Tony Killeen, T.D. Minister of State for the Environment, Heritage & Local Government with speakers and organisers from the first Local Authority Prevention Demonstration Programme National Conference.

Green Business Initiative

Green Business “dot ie” (see www.greenbusiness.ie) is the name given to a web-centred project aimed at enabling any business or organisation to assess their environmental performance particularly in relation to waste and water resource use efficiency. Direct links are provided also to the assessment tools on energy resource

use efficiency available from Sustainable Energy Ireland (e.g. Energy MAP at www.sei.ie). The self-audit tools are being piloted during 2008 with a range of companies being actively targeted across different sectors. To support organisations using the tools, active telephone, e-mail and site visits are available at no cost to advise them on how to make net cost savings through resource use efficiency measures. The intention is to provide the tools to enable any business that wants to voluntarily make savings by improving their own resource use efficiency. An active marketing and outreach programme will be implemented to recruit as many businesses as possible to enable them to prevent waste and save money. As appropriate, case studies from the EPA Cleaner, Greener Production Programme or other sources will be promoted to relevant businesses and organisations.

The policy document, *Delivering Change*, proposes the introduction of a programme of *mandatory* waste audits for organisations incorporating waste reduction plans. The idea of the self-audit tool is to give effect to this policy aspiration initially in a voluntary form. However, it is hoped that many different sectors will co-operate with the prevention initiatives on a voluntary basis obviating the need for legislative mandatory requirements. The Core Prevention Team will closely monitor this policy objective and will make recommendations as appropriate. Independent auditing against EPA guideline requirements by Accredited Inspection Contractors (AIC) is already obligatory for operators covered by the Solvent and Deco-paints Regulations (see later in this report).

A Green Hospitality Award scheme has been developed based on previous work done by EPA/ERTDI on the Cleaner Greener Production Programme project “Greening Irish Hotels”. The original programme involved 56 hotels (3 to 5 star) ranging in size from 30 to 255 beds around the country. Environmental reviews, training, environmental management, best practices and cleaner production plans were developed. Quantified actual savings included diversion of 1,113 tonnes of waste from landfill, reduction of 5,000 tonnes of water consumption and 3,000 tonnes of carbon emissions. If extrapolated across the entire sector the economic benefit could amount to €81.4 million in cost savings, diversion of 56,000 tonnes of waste from landfill, 4.5 million tonnes reduction in water consumption and 162,000 tonnes of carbon. It is clear that there is very significant scope for cost savings in the sector in relation not just to waste, but also to water and energy. Greening the industry will not only help with their competitiveness, but also improve visitor perception of the sustainability of the tourism product in Ireland.

The Clean Technology Centre and Hospitality Solutions Consulting have now been appointed to develop this project even further. Up to 200 hotels are being actively recruited throughout the country in 2008. A range of award and assessment criteria has been developed to underpin the project. Audits, training and guidance are provided to each hotel to enable them to engage in their own prevention programme and to prepare for the different levels of award. These start at an entry bronze award leading stepwise up to silver, gold and platinum levels – the latter being close to the EU Flower level of environmental performance. The awards are based on independent inspections and an awards ceremony is planned for successful businesses. An Advisory Group for the project has met on a number of occasions to review project outputs and progress.

There are already many examples of hotels that have realised annual recurring cost savings by applying a systematic approach to prevention:

- Systematically reducing waste, increasing recycling and composting food waste saved one premises alone €35,000 per annum.

- An in-vessel composting machine installed in one hotel is currently diverting over 150 tonnes of food waste per year and realising them cash savings of €30,000 each year.
- Another hotel is saving €30,000 per annum by reducing water consumption by 15 thousand tonnes by fixing leaks in their distribution system.
- Installing a rainwater harvesting system for public toilets saved 2,600 tonnes of water and €6,000 per year for one hotel.
- Fitting low flow taps and showerheads is saving water and energy (worth €23,000 per annum) in another hotel.
- Two hotels are now saving €60,000 per annum each through reduced electrical consumption (430 kWh or 270 tonnes carbon) by installing energy efficient lighting.

These, and many other examples, are being used to spread the message that prevention pays across the hotel sector. In time, this sector-based approach to Green Business will be extended according as suitable case studies, sector information and resources become available. Health-care organisations, retail and construction activities are currently being considered in this regard.

Packaging Waste Prevention Programme

The Packaging Directive and associated regulations include objectives for the reduction of packaging. Producers are required to meet the criteria of the Essential Requirements minimising packaging placed on the market. While considerable progress has been made nationally in the segregated collection of packaging waste for recycling, there is a need to progress to the actual prevention or minimisation of packaging waste generated. Companies already tend to “lightweight” or reduce material content of their packaging in order to reduce transport and other costs. However, there is a growing need for business marketing decision-makers to take action in relation to the environmental impacts of their packaging design choices. Consumers need to actively demand less packaging and packaging that is more easily recycled.

The Packaging Waste Prevention Programme is being jointly funded by NWPP and Repak who are leading the implementation of the projects. A steering group including representatives from Repak, EPA, Enterprise Ireland, Musgraves Ltd and the Department of the Environment, Heritage & Local Government, is providing technical and strategic input. Negotiations have commenced on developing a sectoral agreement with retailers in relation to packaging prevention. Eight seminars on packaging prevention were held in different parts of the country. Case studies and information on the Essential Requirements have been published in printed form as well as on a new website at www.preventandsave.ie. A supply chain study of selected products identifying reasons for decisions made regarding packaging design has been published. Certified training in packaging prevention has commenced with a pilot programme involving 20 participants. The training will be made generally available through FÁS later this year. Other projects now underway or planned include initiatives similar to Greenbusiness.ie to disseminate best practice case studies and a packaging design seminar in association with Enterprise Ireland, the Marketing Institute and the Graphic Design Business Association. Other packaging prevention projects will be developed as experience and feedback is gained through the implementation of the initial programme. The overall programme is an integral part of the strategy being devised by the National Strategy Group for Packaging Waste Recycling.



Young people joining in at the Awards Ceremony for the An Taisce Green Home scheme.

Green Home Programme

An Taisce are being provided with grant aid to implement the Green Home programme on behalf of the National Waste Prevention Programme. The programme is intended to promote waste prevention and sustainable living in the homes of the school children associated with the An Taisce Green Schools initiative as well as targeting the wider community. This is a pioneering project that has not previously been attempted within the international Green or Eco-Schools movement. During the pilot phase, environmental behaviour surveys were completed before and after implementation of the programme in homes associated with 17 schools. Workshops were held for schools and a number of themed community seminars were held. Over 2,488 families have been involved to date and significant improvements in environmental behaviour were noted through the environmental surveys. A comprehensive website at www.greenhome.ie, a calendar, an action pack and a handbook have all been developed covering prevention in relation to waste, water, composting, energy and transport in the home. The Minister for the Environment, Heritage & Local Government addressed the National Awards Ceremony held in May and each participating school community was awarded with their Green Home pennant for display along with their Green Schools Flag.

The next phase of the Green Home programme has now been approved and will involve 40 newly recruited schools and up to 9,000 more families. Community links will be widened to include the Tidy Towns Network, National Spring Clean, Green Coast and LAPD/N participants. In addition, any member of the public may log onto the website to get prevention tips and environmental information.

NWPP grant aid has also been provided to some smaller local initiatives on waste prevention including a Cork Environmental Forum project and an internet-based schoolbook exchange project (www.schoolbookexchange.ie).

Water and Energy Resource Conservation

The issues of water and energy conservation inevitably arise whenever waste prevention is being considered. All three natural resources form an integral part of the prevention message in any event. In fact, together they represent the essence of resource efficiency, which is a key component in the drive towards Sustainable Consumption and Production. There is a need to link the three issues together whenever environmental awareness-raising measures are being undertaken. Energy conservation is very much the topic of the moment with EU, national and global concerns about energy security/costs, carbon emissions and climate change.

Water is a precious natural resource and needs to be used wisely. It should be conserved for many reasons including biodiversity, climate change adaptation and not least, the amount of chemicals/energy required to collect, treat, store and deliver safe drinking water. The issue is being considered with increasing urgency at EU level with a "Water Hierarchy" being proposed with water use reduction as the most favoured option and new water supplies only being considered as a last resort. Domestically, water supply in the Dublin region is regarded as being critical with shortages forecast by 2016. Policy options for improved water efficiency, user pays principle, appliance water efficiency standards and buildings' water performance specifications need to be explored by Government. Realised cost savings on potable water use reduction may generally be doubled when the cost of savings on reducing downstream wastewater treatment are taken into account.

Considerable efforts are already being deployed nationally to identify and reduce losses of potable water in transmission networks following the completion of a National Water Survey (Unaccounted for Water averages 43% nationally). Commercial and agricultural users of water increasingly have to pay *pro rata* their consumption. Building Regulations now require that dual-flush toilets be fitted from 2008. A Water Services Act provides *inter alia* for a duty of care to maintain plumbing in a leak-free condition, new powers for local authorities to intervene where water loss is excessive and to issue hosepipe bans and fines. Pilot projects in some local authority areas are underway to cost water production and to reduce consumption in domestic and farm settings. A website at www.taptips.ie is in place to advise people of best practice in relation to water use conservation. Integrated Pollution Prevention and Control (IPPC) licensing of major industry has sought to reduce water consumption in different sectors.

In relation to NWPP projects, the issues of water and energy resource conservation naturally arise whenever waste prevention audits are being conducted. Therefore, these issues are included in the web based audit tools developed as part of the Greenbusiness.ie Initiative. They are considered as an integral part of the Green Hospitality Awards project and any other prevention case studies being considered. However, as far as practicable, the existing resources and expertise of Sustainable Energy Ireland will be utilised whenever significant energy conservation solutions are needed (e.g. Energy MAP at www.sei.ie). In relation to water conservation, some of the ERTDI/Cleaner Greener Production projects achieved significant water savings and these will be considered for wider dissemination within the relevant sectors. The Core Prevention Team will continue to link their work strategically with other key players to promote water and energy conservation as an integral part of the waste prevention effort.

The National Strategy on Biodegradable Waste

This important strategy was published in April 2006 and proposes some new prevention targets for the Core Prevention Team. The issue of diversion of biodegradable waste is an urgent one for Ireland with stringent EU targets to be met by 2010 and beyond. The National Waste Report (see below) reported that almost 2.3 million tonnes of biodegradable waste (BMW) was generated in 2006 with 38 per cent being recovered and over 1.4 million tonnes landfilled. By 2010, Ireland is only allowed to landfill 0.967 million tonnes of BMW in order to meet its Landfill Directive targets. There is now a significant danger that this target will not be met. The strategy proposes that the team should develop a programme specifically designed to target prevention of biodegradable waste.



Mr Tony Killeen, T.D., Minister of State for the Environment, Heritage & Local Government and Ms. Marie Lough, Roscommon County Council at the Local Authority Prevention Demonstration Conference

Within the resources provided to the team, all of the relevant NWPP projects have now been adapted specifically to take cognisance of the biodegradable waste strategy. The information needs for tracking performance of the implementation of the national strategy are now integrated into the data collection processes involved in the compilation of the National Waste Reports. Additionally, under this project heading, waste characterisation research is being repeated in 2008 to assure that the most recent intelligence is available. Under the LAPD Programme, priority is given to projects dealing with biodegradable waste prevention. The Greenbusiness.ie audit tools emphasise the prevention of biodegradable waste. It is anticipated that considerable quantities of biodegradable waste can be prevented or diverted from landfill with the implementation of the Green Hospitality Awards programme. Similarly, the extension of this approach to the restaurant and health-care sectors in

time should also realise significant prevention/diversion of biodegradable waste. Promotion of home composting is an integral part of the new Green Home Programme as well as the existing Green Schools Programme. Special consideration will be given to this issue as other projects are rolled out including case studies and provision of on-site waste prevention expertise for businesses/organisations under the Green Business Initiatives. The EPA/Environmental Research, Technological Development and Innovation (ERTDI) Programme have funded Cré (an organisation promoting best practice in composting) to develop standards for compost products. Recently, the team have been requested by policy-makers to develop a grant scheme to enable local authorities to promote home composting more widely.

However, the prevention and minimisation proposals in the strategy cannot be expected to operate in isolation. It is becoming increasingly urgent that other aspects of the strategy should also be implemented. This includes setting up the Strategy Implementation Group, widespread use of separate collection, adequate capacity for domestic or commercial composting with market opportunities identified by the Market Development Group for the resulting products.

National Waste Reports

The provision of accurate and timely information on national waste arisings is key to the effective management and prevention of waste. The National Waste Reports provide information on trends in waste arisings from a wide variety of sectors and helps to direct prevention or recycling efforts towards the management of priority waste streams. The data relate to waste arisings in the Republic of Ireland. Additionally, the reports highlight relevant indicators on waste to regulators as well as policy and commercial decision makers. Importantly, reports required by the European Commission in relation to a range of Directives, including waste and Producer Responsibility Initiatives, are based on data published in the National Waste Reports. The Basel Convention Reports to the UN are also developed on foot of this information.

To develop the reports, detailed waste data is collected each year from numerous players in the waste management sector including waste operators, recyclers, industry and local authorities. The extensive follow up exercises including site audits form an important part of the verification and validation of the waste data that is provided. Systems are in development to facilitate the reporting and collation of such information by way of electronic means, where appropriate, in the medium term. All waste data are collated in conformance with the EU Waste Statistics Regulation.

The National Waste Report for arisings in 2006 was published in January 2008 and generated useful national media coverage and public debate on the subject of waste and its correct management. Waste generation increased in 2006 with increasing consumption in the economy and a rapidly growing population. Municipal waste generation increased by 11 per cent to almost 3.4 million tonnes. The report shows that while good progress has been made on the collection of recyclable municipal waste (up 18%), disappointingly landfilling of this waste also increased by eight per cent. The packaging waste recycling rate fell slightly to 57 per cent not far short of the target of recovering 60 per cent by the national target date of 2008. Only 22 per cent of household waste collected was recovered however, leaving a big distance to the national target of 50 per cent recovery by 2013. Uncollected household waste was estimated at 205,474 tonnes, which is a matter for ongoing concern. Almost 2.3 million tonnes of biodegradable waste (BMW) was generated with 38 per cent being

recovered and over 1.4 million tonnes landfilled. By 2010, Ireland is only allowed to landfill 0.967 million tonnes of BMW in order to meet its Landfill Directive targets. There is now a significant danger that we will not meet this target. Almost 53 thousand tonnes of waste electrical and electronic equipment (WEEE) was collected in 2006 representing 7.4 Kg per person against the EU target of 4 Kg per person. Seventy five per cent of recyclable waste materials collected here were exported reflecting the lack of commercial appetite for developing suitable facilities in Ireland.

It is estimated that over 9.2 million tonnes of industrial waste was generated in 2006, down 4.4 per cent from 2004. Manufacturing waste amounted to over 4 million tonnes, a decrease of 24 per cent on 2004. Of this, less than 250 thousand tonnes was hazardous (6.1%). Construction and demolition waste increased by 13 per cent to almost 17 million tonnes reflecting the construction boom at its height. Records held by the sector are poor and it was disappointing to report that recycling rates are down on 2005.

The National Waste Report for 2007 arisings is currently in preparation for anticipated publication in January 2009.

Communication of Waste Prevention

Developing and delivering a communicable message on waste prevention - as opposed to waste recycling - is an ongoing challenge. The many prevention projects undertaken which are detailed in this report require extensive communications with a wide variety of audiences and stakeholders to effectively promote good prevention behaviours in practice. As they arise, opportunities are taken to communicate with a range of audiences about the programme, including issuing press releases or speaking at relevant conferences, as appropriate. A presentation on NWPP was given at a waste conference organised in conjunction with the Swedish Embassy, at the Cré National Composting Conference and the Generating Energy from Waste Conference. A presentation on the National Hazardous Waste Management Plan was delivered to the Irish Recycling and Waste Management and to the Environment Ireland Conference. A presentation will be delivered on the Local Authority Prevention Demonstration Programme to the European Roundtable on Sustainable Consumption and Production in Berlin. The Eco-eye television series was again commissioned and suitable broadcast material developed as a means of communicating with a national audience about elements of the programme.

4. Hazardous Waste Prevention and Management

The National Hazardous Waste Management Plan 2008-2012

The EPA and the Core Prevention Team have been assigned a strategic role in the prevention and management of hazardous waste in Ireland. The EPA is required by law to prepare a National Hazardous Waste Management Plan having regard to the prevention/minimisation, recovery, collection/movement and disposal of hazardous waste. The first National Hazardous Waste Management Plan (NHWMP) was published in 2001 with the prevention of hazardous waste among its principal recommendations. The National Waste Prevention Committee monitors the implementation of the NHWMP as required by the Terms of Reference for the committee to monitor the implementation, by relevant public authorities, of the plan recommendations (see Appendix B). The Core Prevention Team presents reports on hazardous waste data and related issues to the committee on a periodic basis for discussion.

In accordance with the Waste Management Act, the NHWMP has been revised in line with the requirements of the Strategic Environmental Assessment (SEA) Regulations. This process commenced in 2005 and a Steering Group comprising most members of the National Waste Prevention Committee provided oversight for the project. An initial public consultation was completed and several Steering Group meetings were held. Each hazardous waste stream was considered in turn and fresh recommendations developed to better enable the effective prevention, collection, recycling or treatment of all such wastes, as appropriate. The relevant authorities in Northern Ireland were consulted to maintain an all-island perspective on the issues. The draft plan, along with the SEA Environmental Report, was published in November 2007 and public meetings to explain the plan were held. Full public consultation was completed in January 2008, including transboundary consultation in line with the SEA Directive. The final plan and SEA Statement were published in September 2008.

Hazardous Waste Arisings

To put the plan in context, data from the National Waste Report shows that in 2006 over 284 thousand tonnes of hazardous waste was generated, an 8 per cent decrease since 2004. The majority of this waste was treated appropriately with 31 per cent (88 thousand tonnes) being treated on-site of generation. Over 21 per cent or almost 61 thousand tonnes was treated off-site of generation but in Ireland. The balance of less than 135 thousand tonnes (48%) was exported for treatment or disposal abroad. It is estimated that over 9.2 million tonnes of industrial waste was generated in 2006, down 4.4 per cent from 2004. Manufacturing waste amounted to over 4 million tonnes, a decrease of 24 per cent on 2004. Of this, less than 250 thousand tonnes was hazardous (6.1%). Over 68 per cent of this waste was produced by the chemical and pharmaceutical sector. It is estimated that almost 30 thousand tonnes of hazardous waste was “unreported”, that is, not recorded as entering the formal waste management system in the proportion that products were placed on the market. Examples include paint/ink packaging, batteries, household hazardous waste, sheep/other agricultural containers, fluorescent lamps, waste oils/filters and commercial solvents. In 2006, almost 407 thousand tonnes of contaminated soil was removed from brownfield sites undergoing redevelopment. Only 9 per cent of this material was treated in Ireland with the balance exported.

Hazardous Waste Prevention

The new National Hazardous Waste Management Plan contains proposals and recommendations to address each of these issues. The Department of the Environment, Heritage and Local Government must provide overall policy leadership and resources for the implementation of the plan. The National Waste Prevention Committee will continue in its implementation oversight role. The EPA Core Prevention Team are to undertake a variety of tasks including data collection and dissemination, as well as start up projects to support various recommendations.

Prevention of hazardous waste is particularly important as, by definition, the properties of such waste pose particularly serious risks to the environment and human health in disproportion to the actual quantities involved. Many of the cornerstone recommendations of the National Hazardous Waste Management Plan relate to the prevention of hazardous waste. Six priority sectors have been identified for particular attention: pharmaceuticals, printing, healthcare, transport, agriculture and households. Sector-specific prevention plans have been published within the overall plan. These plans will be implemented as resources are provided to the Core Prevention Team within NWPP. Overall, organisations within each sector need to be encouraged to undertake waste audits as described for the LAPD and Green Business Initiative projects. This will enable them to identify for themselves how much of different kinds of waste that they are generating and plan to eliminate, reduce, or at least recycle, as much as they reasonably can. In particular, organisations need to identify where less or non-hazardous substitute products or processes can be used. In most cases, this will result in resource efficiency, innovation and cost savings for the organisations themselves.

The exact approach taken with the sector-specific plans will vary with each sector identified but a toolbox approach consisting of a number of elements is envisaged. These tools include engagement with the sector through representative Advisory Groups to guide prevention activities and projects and to act as a conduit for communications with the sector. Engagement with individual companies will be important in order to recruit and bolster champions, case studies and leaders for change in the sector (e.g. through the Greenbusiness.ie project). Detailed information will be developed to benchmark the sectors' current resource use efficiency performance and identify opportunities for prevention at the sectoral or individual company level. From this research, it may be possible to identify environmental and waste related objectives and performance targets. Case studies arising from this work will need to be effectively disseminated to encourage widespread adoption of the improved performance levels attainable. Financial incentives may be needed to support the uptake of the different initiatives as appropriate. Responses to sector specific issues will need to be addressed in consultation with all relevant stakeholders.

HAZRED

The HAZRED EU/Life funded research project was completed in 2007. This project was led by the Environment Agency (UK), with the EPA acting as partners in Ireland to ensure that SMEs here had the opportunity to participate. This applied research project aimed to identify SME sectors that generated significant amounts of hazardous waste and provided guidance and audit tools to demonstrate hazardous waste prevention. A methodology was developed to select sectors where SMEs generate significant quantities of hazardous waste. Six sectors were selected when

the methodology was applied in the UK: Manufacture of speciality organic chemicals; Maintenance and repair of motor vehicles; Treatment and coating of metals; General construction and building; Manufacturing of machinery and equipment and, Photographic processing. The Core Prevention Team worked to disseminate the project in Ireland and seven SMEs in Ireland signed up for the programme.

A best practice prevention guidance document was drawn up for each sector and expert auditor/trainers were appointed. Each SME received a free site audit as well as free training and advice on the guidance. They were required to sign up to a waste reduction plan. Follow up visits from the expert consultants were used to determine the effectiveness of the prevention effort. While some positive results were reported, time did not allow for the full implementation of prevention plans some of which require investments over a year or more. One finding was that companies were unwilling to allow details of their audits to be made public - perhaps fearing enforcement or ridicule - as some prevention issues identified were seemingly very obvious. Further information on the HAZRED project is available at www.hazred.org.uk. Ultimately the sector selection/guidance preparation and audit/monitoring approach will be incorporated into sectoral waste prevention initiatives noted above.



Thumbs up at the Awards Ceremony for the An Taisce Green Home scheme

Other Hazardous Waste Management Plan Recommendations

In relation to “unreported” hazardous waste, recommendations are made to improve the collection infrastructure. This includes resourcing each civic amenity site to enable them to take a wider range of small household and SME (in strictly limited amounts at cost) hazardous waste. The EPA undertakes to develop a code of practice and operator training to support these developments. An asbestos waste collection facility needs to be provided in each local authority area also. Producer Responsibility Initiatives (similar to packaging or WEEE, see later in this report) may be required to enable the finance and logistical support to be provided to support

these developments. These initiatives may be particularly useful in relation to human and animal medicines, farm chemicals, waste oils/filters, paint containers and household/garden chemicals. Local authorities are urged to consider working together to improve collection efficiencies and to reduce their costs. Information needs to be provided to the public on an ongoing basis once the collection facilities are in place to maximise the collection of hazardous waste. The civic amenity site collections could also be augmented by periodic “chemcar” visits to highlight the need to collect small-scale hazardous wastes. The implementation of the WEEE (since 2005) and Batteries (September 2008) Regulations will greatly help to collect large amounts of hazardous waste going forward. Other proposals to deal with “unreported” hazardous waste include an Accredited Inspection Contractor scheme for garages (similar to Deco-paints/Vehicle Refinishing, see later in this report), farm hazardous waste collection, guidance for ports and harbours, health care risk waste initiative and industrial estate schemes. Once many of these initiatives are in place, enforcement by local authorities will be needed to discourage any illegal disposal of hazardous wastes.

In relation to hazardous waste that *is* managed, the plan recommends that Ireland should strive for greater self-sufficiency in treatment capacity. This would avoid unnecessary transport of hazardous material across long distances and would enable greater levels of fuel import substitution or material reclamation to take place domestically. In particular, it is recommended that, where possible, existing infrastructure here should be used to treat hazardous waste. Examples include combustion of highly calorific solvents in cement and power generation plants and increasing existing capacity in solvent recycling facilities. There is much scope to treat contaminated soils with relatively simple technologies retaining a resource here as well as avoiding excessive transport impacts. Alternative technologies are considered to play an important part in the issue along with more established physico-chemical treatment options. Landfill capacity is necessary to manage asbestos and any waste fly ash arisings. Incineration either abroad or in Ireland is needed to manage particular hazardous wastes. Domestic facilities would avoid transport impacts and enable waste heat to be captured. The plan invites the investment community to consider the data and scenarios proposed and invest in domestic capacity where technically and economically feasible. Ultimately, market forces and economics will determine how, and where, particular hazardous waste streams are treated. Policy may only legally direct where waste may be disposed but not where recyclable materials can be treated. It is noteworthy that hazardous wastes may now be moved between the northern and southern jurisdictions of Ireland for disposal, which may open up economies of scale for investment.

The plan has recommendations on legacy impacts of hazardous waste including closed landfills, harbour/port sediments and contaminated soils. Closed landfills need to be identified and a risk assessment carried out in accordance with EPA guidelines by local authorities. The Department of the Marine need to assess and sample on a risk basis harbour sediments that may be contaminated by shipping activities or downstream run-off. More contaminated soil should be treated domestically as noted above.

Other Work in relation to Hazardous Materials

The EPA Core Prevention Team also work on the development, implementation and enforcement of a wide range of statutory measures aimed at prevention and better management of a variety of potentially hazardous/eco-toxic waste substances and products. This varied work has potential to result in significant prevention of

hazardous waste – or at the least its correct collection and management – arising from a variety of scheduled activities and products. These measures include implementation or enforcement of the Persistent Organic Pollutants (POPs) and Polychlorinated Biphenyls (PCBs) legislation, the Solvents and Deco-paints Regulations, the Ozone Depleting Substances (ODS) obligations as well as the Waste Electrical & Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS), Packaging (Essential Requirements), Batteries and other Regulations. Project activities relating to these Regulations are detailed later in this report.

The team no longer has responsibility for the regulation of notifiable waste imports as this function has transferred to Dublin City Council's National Transfrontier Shipment of Waste (TFS) office. Support is being provided to Dublin City Council as they take up their new role in relation to TFS. The team continue to have responsibility for developing all data for TFS reports for submission to the EU Commission as part of the National Waste Report project.

5. Regulated Products and Scheduled Activity Compliance

Polychlorinated Bi-phenyls (PCBs) Regulations

Typically Polychlorinated Bi-phenyls (PCBs) occur in older electrical equipment such as transformers, capacitors and fluorescent lighting ballasts. They are themselves Persistent Organic Pollutants (POPs) and extremely harmful to the environment but are covered by separate legislation to other POPs reported below. The EPA originally published a Management Plan for PCBs in 2002 in accordance with the Regulations. The plan described the position then in Ireland regarding PCBs, provided technical guidance and outlined the legal requirements placed on any holders of such materials to notify the EPA. This plan has now been completely updated with extensive communication and engagement with organisations where their facilities might contain holdings of PCBs. A tender was developed and awarded for this work. A PCB survey was issued to over 1,000 organisations with a return rate of 40 per cent. This was followed through with extensive telephone contacts. Over 100 site inspections were completed and targeted articles were published nationally. In this way, contact was made with numerous organisations likely to have a large number of older buildings including the Defence Forces, Irish Rail, ESB, HSE, RTE and the local authorities. A database of the findings and a PCB inventory will be published on the EPA website for access by all stakeholders later in 2008. An updated PCB Management Plan will also be published, incorporating a Code of Practice for the in-use management of PCBs and PCB containing equipment. Enforcement and awareness raising will be an ongoing task in relation to PCBs.

Persistent Organic Pollutants (POPs) Regulations

The EC Regulation on Persistent Organic Pollutants (POPs) requires that a range of measures relating to control of production, placing on the market, use, stockpiles, release reduction and waste management be put in place. National regulations designating the EPA as Competent Authority in relation to POPs are in preparation. Other authorities with responsibilities in this regard have been engaged with on an ongoing basis including the Department of Agriculture (Pesticides Control Service), Health and Safety Authority (REACH chemical Regulations), Irish Medicines Board, Food Safety Authority of Ireland and other parties. Development of POPs inventories to air, water and land have been prepared by the Inventories unit of the EPA. Permit conditions in IPPC licences will be kept under review in relation to POPs. Monitoring data on the presence of dioxins, furans and PCBs in the environment will continue to be published by the EPA. A National Implementation Plan (NIP), including an Action Plan on measures to identify, characterise and minimise releases of specified substances, is being drafted and will be the subject of full public consultation in early 2009. Pre-consultation via national public notices and a consultation paper was conducted in June 2008 in this regard.

Dealing with ongoing enforcement and emerging issues in relation to POPs forms an important part of this area of work. Included here were issues in relation to a lindane containing veterinary product, completion of EC PFOS and domestic dioxin emissions questionnaires, and consideration of the levels of POPs in waste. Research needs in relation to POPs are being kept under review.

Restriction of Hazardous Substances (RoHS)

The RoHS Directive came into effect on 1 July 2006 and is intended to restrict the use of harmful substances in the manufacture of electrical and electronic equipment. This Single Market Directive is intended to contribute to the protection of human health and the environmentally sound disposal of Waste Electrical & Electronic Equipment (WEEE). The substances controlled include lead, mercury, cadmium, hexavalent chromium as well as specified flame retardant chemicals. The Regulations prohibit the marketing or distribution of relevant products that contain more than the specified level of these substances. In effect, this imposes statutory eco-design criteria on all players in the EEE market and supply chain. Producers must retain adequate records of certification of compliance or testing of any component utilised in production to verify compliance with these requirements. The EPA is the sole enforcement agency for RoHS and has been provided with extensive powers to investigate, test and, if necessary, issue directions for prohibited products to be withdrawn/recalled from the market. The EU Commission guidance on the implementation of Single Market Directives is applicable to the enforcement of RoHS Directive.

The Core Prevention Team have been delegated the task of enforcing RoHS in Ireland. A strategy is being implemented including information provision, investigation of complaints, consideration of producer reported breaches and sampling/testing of products on the market. Most of the nineteen products tested were found to be compliant. A pan-EU recall of Mattell toy products on safety grounds was dealt with as some products were covered by RoHS requirements. Any products identified as being non-compliant are the subject of ongoing enforcement correspondence with the relevant producers, retailers and supply chain players. Liaison with EU colleagues is ongoing through the RoHS Enforcement Network bi-annual meetings in Tallinn and in Stockholm.

Packaging Prohibited Substances

The Packaging Regulations introduced in 2007 cite Essential Requirements prohibiting specified hazardous substances in packaging. A producer is prohibited from supplying packaging where certain concentrations of lead, cadmium, mercury or hexavalent chromium are exceeded. There are provisions for determining the compliance of glass packaging with these limits. While these obligations are placed on producers, the team is considering how enforcement surveillance might be implemented to assure that packaging placed on the market here complies with these requirements.

Batteries and Accumulators

These Regulations take effect on 26th September 2008. The legislation prohibits the marketing of batteries containing more than a maximum specified amount of mercury or cadmium, or are inappropriately labelled. The team will develop in the coming period an appropriate enforcement strategy based on the successful implementation of the RoHS Regulations.



Mr Tony Killeen, T.D., Minister of State for the Environment, Heritage & Local Government, Ms Joan Tarmey, Clare County Council and Dr Gerry Byrne, EPA at the Local Authority Prevention Demonstration Conference

Deco-paints Regulation: Product Compliance Enforcement

Another Single Market Directive has recently been implemented in Ireland by the Deco-paints Regulations. Limits are specified for the solvent (Volatile Organic Carbon) content of paints marketed to the household, professional and vehicle refinishing sectors. The EU Commission guidance on the implementation of Single Market Directives is applicable to the enforcement of the product requirements of Deco-paints. The EPA has been nominated as the Competent Authority in relation to these Regulations. Information is published on the requirements at www.decopaints.ie.

Generally, inspections of home decorative products major retailers have shown a good level of compliance with the requirements. In 2007, 500 labelling inspections were completed and samples taken for solvent content analysis.

All complaints concerning non-compliant products in the vehicle refinishing sector have been followed through with inspections throughout the country. Some instances of unlabelled product were identified and remedial actions were immediately put in place by the retailer. No instances of widespread importation have been uncovered. Additionally, up to 500 vehicle refinishing operations have now been inspected by Accredited Inspection Contractors (see later in report) all of whom are prohibited from using non-compliant products. Samples of product were taken from the market and sent for specialised chemical analysis to ascertain the levels of VOCs in the products for compliance.

The required EU questionnaire on the enforcement carried out in 2007 in relation to these Regulations was prepared and forwarded on time to the Department of the Environment, Heritage & Local Government.

Enforcement of the Ozone Depleting Substances (ODS) Regulation

The Montreal Protocol on Substances that Deplete the Ozone Layer (1989) is an international initiative to protect the stratospheric ozone layer from harm by certain anthropogenic chemicals. This ozone layer protects the Earth from damaging ultraviolet emissions from the sun. The European Community and each Member State are Party to the Protocol. It aims to regulate the production, import/export, placing on the market, use, recovery, recycling, reclamation and destruction of specific substances that have an ozone depleting potential. Such substances are in limited use in diverse sectors such as refrigeration and air-conditioning (CFCs and HCFCs), fumigation and pest control (methyl bromide), fire prevention and suppression (halons) and the pharmaceutical sector (ozone depleting solvents). The Regulations assign responsibilities, minimum qualification requirements and reporting obligations in relation to ODS. As there is no production of ozone depleting substances (ODS) in Ireland, the implementation and enforcement of the Regulation here focuses primarily on regulating their use and ensuring the correct management of waste ODS. The regulation of import and export is concerned with the import from, and export to, non-EU countries. Information on the requirements of the Regulations is posted at www.ozone.ie.

The routine five annual reports were submitted on time to the EU based on results of surveys conducted early in 2008. Liaison has been maintained with the Department of Agriculture, Fisheries and Food (Pest Control, Forest Services, Plant Protection), the Maritime Safety Directorate and the Customs Division of the Revenue Commissioners as organisations with responsibilities for specific tasks relating to ODS. EPA also maintains close liaison with relevant sectoral organisations including the Institute of Refrigeration or Ireland, Refrigeration Skillnet, and the Fire Engineering Systems Association.

Unannounced inspections were carried out at a number of premises within the refrigeration and air conditioning sector. While no major non-compliances were identified, a number of minor issues are the subject of ongoing correspondence. For example, a large proportion of halon stock held by one critical user was in fact installed for non-critical use. However, measures are now being taken to have this rectified. Use of methyl bromide has shown substantial decrease and is now virtually phased out. Illegal stocks of CFC and HCFC stock were discovered and Legal Notice issued to the holder to arrange disposal as hazardous waste. An information stand at the Irish Property & Facility Managers Association (IPFMA) conference at Croke Park with DEHLG and SEI was mounted to raise awareness in the sector. Sectoral guidance notes were made widely available for the benefit of operators affected by the ODS legislation including on the Internet. Contact has been made with educational bodies to ensure that appropriate training is available.



CFC 12 and HCFC 22 for disposal as hazardous waste, following investigation

Implementation of the Solvents and Deco-paints Regulations for Scheduled Activities

The Solvents Directive aims to prevent hazardous waste arising in a range of different industrial sectors. The EPA regulates larger solvent using installations under the Integrated Pollution Prevention and Control (IPPC) licensing regime. The Regulations require that SME operators register with their local authority, maintain detailed records of solvent use/reduction and undertake annual inspections of their operations from 31 October 2007 onwards. Accredited Inspection Contractors (AIC) must conduct these inspections and be duly registered by the Irish National Accreditation Board (INAB) to the ISO 17020 International Inspection Bodies Standard. Similarly, the new Deco-paints Regulations require that Vehicle Refinishing operators register with their local authority having undertaken a compliant AIC audit from 1 March 2008. There are a large number of SME companies potentially impacted by the Solvents and Deco-paints Regulations. There is scope for significant reductions in hazardous waste solvents arising. Any hazardous waste arising should be better managed as a result of these AIC schemes. Information is made available at www.solvents.ie and www.vehiclerefinishers.ie.

The Core Prevention Team developed the foundations for the operation of both AIC schemes. To date, three organisations have been accredited as AICs by INAB and have commenced operations. New guidance was developed for Vehicle Refinishers and presented at a sectoral consultation workshop. A research project was completed to identify and directly alert all Vehicle Refinishers to their new obligations. All of the original Solvents guidance documents have been reviewed in line with the new Deco-paints Regulations. A briefing session was held in May 2008 with all local authorities through the Office of Environmental Enforcement's Environmental Enforcement Network to update them on all of the preparatory work completed. The local authorities will now need to enforce the obligations on any operator that does not comply. To date, it appears that as many as 300 Dry Cleaner (Solvents) and 500 Vehicle Refinisher (Deco-paints) AIC inspections have been completed. The EU questionnaire is currently being prepared by the EPA to report on the implementation

of the Solvent Regulations in Ireland. A similar AIC scheme is envisaged for the garages and motor repair sector as part of the implementation of the National Hazardous Waste Management Plan as noted earlier in this report.

6. Producer Responsibility Initiatives

Producer Responsibility Initiatives (PRIs) are economic regulatory instruments, which require producers (both manufacturers and importers of products) to retain physical and financial responsibility for the management of their products when they become waste. Producers are required to take account of the environmental impact of their products through design, in-use and at end-of-life management stages. The Terms of Reference for the National Waste Prevention Committee (Appendix B) requires it to monitor progress in sectoral producer responsibility initiatives and thence the inclusion in this report.

The Core Prevention Team provides input and support to the development and implementation of a range of PRIs, in co-operation with other stakeholders, by actively participating in meetings of the Producer Responsibility Liaison Group, the Waste Electrical and Electronic Equipment (WEEE) Monitoring Group, the Batteries Working Group, the WEEE Register Society, the National Strategy Group for Packaging Waste Recycling, the National Construction & Demolition Waste Council and the Market Development Group.

In particular, information is provided on the distance to targets to be achieved for the recovery of all relevant waste streams as part of the National Waste Reports. The official returns to the EU Commission concerning each Directive are based on data developed for these reports also. Some of the work completed by the team on these PRIs is outlined below.

Enforcement of the WEEE and Batteries Regulations

The WEEE Regulations require producers of electrical and electronic equipment (EEE) to register and provide financing for the collection, storage, treatment, recovery and, as appropriate, disposal of WEEE in an environmentally sound manner. Obligations are placed on retailers to take back household WEEE free of charge and to provide information to their customers regarding take-back options. Since obligations under the WEEE Regulations came into force on 13 August 2005, EPA inspectors and contractors have been undertaking random, unannounced inspections of retailers of EEE. Significant efforts are being made also to identify any unregistered, potentially obligated producers or “free-riders”, and EPA carried out inspections of many such “free-riders” in 2007/2008. Producers/retailers who supply EEE by means of distance communication (web-sites, mail order catalogues, telesales etc.) are also covered under the WEEE Regulations, and inspections of such operations are also ongoing. The EPA assesses the adequacy of waste management plans and reports submitted by self-complying producers. In February 2008, the EPA hosted an information session on waste management plans and reports for producers. All complaints received, from whatever source, are acted on as part of the surveillance effort. Extensive ongoing correspondence has been initiated alerting retailers and producers alike to their obligations under the Regulations.

Where compliance is not achievable through information provision and advice, legal action may be taken. A conviction was recorded July 2008 against a producer who failed to register and failed to report on quantities of EEE placed on the market. The Dublin Metropolitan District Court convicted System Video Ltd and awarded costs and fines to the EPA amounting to over €20,000. Other prosecutions are underway against other non-compliant players in this market.

The Core Prevention Team continues to work closely with other bodies including the National Consumer Agency, the Advertising Standards Authority for Ireland (ASAI), the Broadcasting Complaints Commission, the WEEE Register Society Ltd (the national producer registration body) and the Revenue Commissioners. All are providing the benefit of their particular expertise in relation to dealing with issues of registration/inspection of foreign and distance sellers of EEE. Information on the requirements of the Regulations is posted at www.weee-enforcement.ie.

Under the WEEE Regulations, local authorities also have responsibility for the enforcement of many retailer obligations. The team organised a WEEE Working Group, which has recently published guidance on enforcement of the WEEE Regulations for the use of all local authorities. The established EPA Office of Environmental Enforcement's Environmental Enforcement Network on Producer Responsibility was utilised to host a Network meeting on the WEEE and Batteries Regulations involving all local authorities in May 2008.

The WEEE Regulations have had significant results whereby very large quantities of potentially hazardous waste have been collected for recycling. According to the National Waste Report, almost 53 thousand tonnes of WEEE was collected in 2006 representing 7.4 Kg per person against the EU target of 4 Kg per person per annum. Additionally, the material content of WEEE has been reused avoiding the need for virgin material to be produced. A stakeholder consultation is being led by the Department of the Environment, Heritage & Local Government to determine ways to develop the systematic *Reuse* of WEEE in Ireland, which would itself be a significant waste prevention initiative.



Obligations under the Batteries and Accumulators Regulations come into effect on 26th September 2008. The objective of the measures is to minimise the negative impact of batteries and accumulators - and waste batteries and accumulators - on the

environment, so contributing to the protection, preservation and improvement in the quality of the environment. The legislation, in a similar manner to WEEE, provides for the registration of producers and places obligations on retailers regarding financing the free take-back of batteries and the provision of information to the public. Information on the requirements of the Regulations are posted at www.batteries-enforcement.ie. The team will develop in the coming period an appropriate enforcement strategy based on the successful implementation of the WEEE Regulations.

Packaging Waste Recycling

Local authorities are responsible for the enforcement of the Packaging Regulations in their functional areas especially for commercial entities that seek to self-comply. The EPA Office of Environmental Enforcement provides leadership to local authorities through the Environmental Enforcement Network on improving compliance with the Packaging Regulations. The Core Prevention Team are responsible for verifying the packaging-recycling rate each year as part of the National Waste Report project.

New Regulations introduced in 2007 are expected to bring many more businesses into the obligated producer category with the *de minimis* being reduced from 25 to 10 tonnes of packaging placed on the market. The team has completed a project to search, identify and directly alert all potential newly obligated producers to the requirements. A database of the findings has been published to assist local authorities in their enforcement efforts. The established EPA Office of Environmental Enforcement's Environmental Enforcement Network on Producer Responsibility was utilised to host a Network meeting on the new Packaging Regulations and the database findings involving all local authorities in May 2008.

The packaging waste recycling rate fell slightly to 57 per cent, not far short of the target of recovering 60 per cent by the national target date of 2008. This slight fall was attributed to an increase in landfilling of which a defined proportion has been shown by waste characterisation research to consist of packaging. While it is important to continue to attain these mandatory recycling targets, attention is increasingly being focussed on Packaging Waste Prevention as described earlier in this report. This will contribute to compliance with the minimisation aspects of the Packaging Essential Requirements. These include a requirement that packaging be limited to the minimum adequate amount to maintain the necessary level of safety, hygiene and acceptance for the packed product to the consumer.

Other Producer Responsibility Initiatives

Under the End-of Life Vehicle Regulations, vehicle brand holders or producers must put in place a national network of Authorised Treatment Facilities (ATFs). These facilities must meet specified environmental standards and provide for the free depollution, treatment and recovery of vehicles at the end of their useful life. Additionally, there are eco-design obligations on vehicle producers including a requirement to ensure that vehicle materials and components do not contain lead, mercury or hexavalent chromium. Local authorities are responsible for enforcing these Regulations in each of their functional areas while the EPA are responsible for collecting data through the National Waste Report project. The Core Prevention Team are engaging with the different sector players to ascertain how recycling data

might be best compiled. A tender has been prepared to conduct waste characterisation and shredder trials to this end.

Regulations on waste tyres were published in 2007 in order to promote the environmentally sound management of this waste stream. Information on quantities recycled will be collated by the team as part of the National Waste Report project.

7. Conclusions

This report details the wide range of developing projects being undertaken by the Core Prevention Team to engender widespread capacity in waste prevention and resource productivity/efficiency in private and public sector organisations, as well as in the community generally. This is particularly appropriate as the country enters a period of reduced economic activity and demands for more competitiveness. It is intended that each initiative will be expanded nationally as the pilot phases are completed and suitable mechanisms, including funding and human resources, are made available to achieve this. The projects will continue to document case studies on lessons learned and ensure that these are integrated across the whole programme.

Other contacts provide fresh ideas for additional new projects in the years ahead. BRE Ireland has set up an Enterprise Acceleration Centre at Limerick Institute of Technology to promote sustainability and innovation in the built environment. The possible scope for collaborating on construction waste prevention and resource conservation through building design could be explored. This includes all phase of the life of the built environment from construction, use, refurbishment and demolition. Even with a downturn in construction activity, there is still room for innovation in the sector particularly given their poor record-keeping performance reported in the National Waste Report 2006. Similarly, a National Industrial Symbiosis Programme is currently being run throughout the UK that provides linkages between companies to identify sustainable resource management solutions for businesses. Similar programmes are in place at a local level in the mid-west (through Supply Network Shannon's pallet exchange) and south-west (through Macroom-e's www.waste-matchers.ie website) and a further proposal is being explored with Dublin City Council.

Waste prevention is an important strategic activity for Ireland to continue engaging with in order to ensure sustainable, competitive growth into the future. In the years to come, it is anticipated that the nascent waste prevention projects reported on here, in conjunction with other integrated national waste management initiatives, will yield important results. This will require that appropriate resources are available and that relevant stakeholders/sector players respond positively to the challenges. However, the current exploratory projects would need to be scaled-up considerably before an impact would be seen on national waste arising figures.

The Core Prevention Team will continue to work with all relevant players to promote the ongoing development of a culture of waste prevention and resource efficiency in Irish society. With the appropriate resources and the willing participation of all stakeholders, the ongoing developing National Waste Prevention Programme described in this report will ensure that Ireland makes good progress in relation to Resource Use Efficiency. This in turn will contribute to national competitiveness and progress towards more Sustainable Production and Consumption in Ireland.

Appendix A

National Waste Prevention Committee Representatives

Representative	Organisation
Dr. Gerry Byrne, Chairman	Environmental Protection Agency
Mr. Pat Macken / Ms. Jean Clarke	Department of the Environment, Heritage & Local Government
Mr. Dale Crammond	Department of Agriculture, Fisheries & Food
Ms. Margo Monaghan	Department of Enterprise, Trade & Employment
Nomination requested	City & County Managers Association
Mr. Donal Buckley	Irish Business & Employers Confederation
Mr. Brendan Keane	Irish Waste Management Association
Dr. Duncan Martin	Chartered Institution of Wastes Management
Ms. Marion Byron	Irish Industrial Products Association
Mr. Des Cummins	Small Firms Association
Dr. John Ryan	Irish Small Medium Enterprises
Mr. Tom Dunne/Mr Thomas Ryan	Irish Farmers Association
Mr. Fred McDarby	Enterprise Ireland
Nomination requested	Comhar
Mr. Noel Duffy/Mr Tadhg Coakley	Clean Technology Centre
Mr. Frank Corcoran	Environmental NGO's
Mr. Paul Javens	Chambers of Commerce of Ireland
Mr. Conor Creedon	Irish Creamery Milk Suppliers Association
Ms. Mary Twomey	Forfás
Mr. Peter Ryan	Health Services Executive
Mr. Brendan McDonagh	Industrial Development Agency

Appendix B

Committee Terms of Reference

National Waste Prevention Committee TERMS OF REFERENCE

- Monitor the development and implementation of the National Waste Prevention Programme;
- Monitor the implementation, by relevant public authorities, of National Hazardous Waste Management Plan recommendations;
- Advise and provide strategic direction to the Core Prevention Team in developing and driving the National Waste Prevention Programme;
- Provide input to the Environmental Protection Agency for the purpose of section 26(6) of the 1996 Waste Management Act;
- Identify priorities for action and make recommendations to relevant public authorities and private bodies;
- Consider and make recommendations to the Minister for the Environment, Heritage and Local Government regarding appropriate policy and legislative initiatives;
- Have regard to national, European Union and international policy and legislation and best practice in relation to waste prevention and hazardous waste management;
- Facilitate, support and promote co-ordination and liaison between relevant bodies, public and private, on the National Waste Prevention Programme and the National Hazardous Waste Management Plan;
- Consider and make recommendations to relevant bodies regarding public awareness requirements in relation to hazardous waste and the prevention of waste;
- Monitor and evaluate new research and data on waste prevention, trends in hazardous and non-hazardous waste production and waste management practices;
- Consider and make recommendations to the Environmental Protection Agency and the Department of the Environment, Heritage and Local Government on research priorities;
- Monitor progress in sectoral producer responsibility initiatives;
- Disseminate information on best practice in waste prevention and hazardous waste management;

- Consider and make recommendations to relevant bodies regarding the provision of funding to support implementation of the National Waste Prevention Programme and the National Hazardous Waste Management Plan; and
- Prepare and submit to the Minister for the Environment, Heritage and Local Government an annual report outlining progress on the implementation of the National Waste Prevention Programme and the National Hazardous Waste Management Plan.

An Gníomhaireacht um Chaomhnú Comhshaoil

Is í an Gníomhaireacht um Chaomhnú Comhshaoil (EPA) comhlachta reachtúil a chosnaíonn an comhshaoil do mhuintir na tíre go léir. Rialaímid agus déanaimid maoirsiú ar ghníomhaíochtaí a d'fhéadfadh truailliú a chruthú murach sin. Cinntímid go bhfuil eolas cruinn ann ar threochtaí comhshaoil ionas go nglactar aon chéim is gá. Is iad na príomh-nithe a bhfuilimid gníomhach leo ná comhshaoil na hÉireann a chosaint agus cinntiú go bhfuil forbairt inbhuanaithe.

Is comhlacht poiblí neamhspleách í an Gníomhaireacht um Chaomhnú Comhshaoil (EPA) a bunaíodh i mí Iúil 1993 faoin Acht fán nGníomhaireacht um Chaomhnú Comhshaoil 1992. Ó thaobh an Rialtais, is í an Roinn Comhshaoil agus Rialtais Áitiúil a dhéanann urraíocht uirthi.

ÁR bhFREAGRACHTAÍ

CEADÚNÚ

Bíonn ceadúnais á n-eisiúint againn i gcomhair na nithe seo a leanas chun a chinntiú nach mbíonn astuithe uathu ag cur sláinte an phobail ná an comhshaoil i mbaol:

- áiseanna dramhaíola (m.sh., líonadh talún, lois-ceoirí, stáisiúin aistriúcháin dramhaíola);
- gníomhaíochtaí tionsclaíocha ar scála mór (m.sh., déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta);
- diantalmhaíocht;
- úsáid faoi shrian agus scaoileadh smachtaithe Orgánach Géinathraithe (GMO);
- mór-áiseanna stórais peitreal.

FEIDHMIÚ COMHSHAOIL NÁISIÚNTA

- Stiúradh os cionn 2,000 iniúchadh agus cigireacht de áiseanna a fuair ceadúnas ón nGníomhaireacht gach bliain.
- Maoirsiú freagrachtaí cosanta comhshaoil údarás áitiúla thar sé earnáil - aer, fuaim, dramhaíl, dramhuisce agus caighdeán uisce.
- Obair le húdaráis áitiúla agus leis na Gardaí chun stop a chur le gníomhaíocht mhídhleathach dramhaíola trí chomhordú a dhéanamh ar líonra forfheidhmithe náisiúnta, díriú isteach ar chiontóirí, stiúradh fiosrúcháin agus maoirsiú leigheas na bhfadhbanna.
- An dlí a chur orthu siúd a bhriseann dlí comhshaoil agus a dhéanann dochar don chomhshaoil mar thoradh ar a gníomhaíochtaí.

MONATÓIREACHT, ANAILÍS AGUS TUAIRISCIÚ AR AN GCOMHSHAOIL

- Monatóireacht ar chaighdeán aer agus caighdeán aibhneacha, locha, uisce taoide agus uisce talaimh; leibhéil agus sruth aibhneacha a thomhas.
- Tuairiscíú neamhspleách chun cabhrú le rialtais náisiúnta agus áitiúla cinntiú a dhéanamh.

RIALÚ ASTUITHE GÁIS CEAPTHA TEASA NA HÉIREANN

- Caimníochtú astuithe gáis ceaptha teasa na hÉireann i gcomhthéacs ár dtiomantas Kyoto.
- Cur i bhfeidhm na Treorach um Thrádáil Astuithe, a bhfuil baint aige le hos cionn 100 cuideachta atá ina mór-ghineadóirí dé-ocsaíd charbóin in Éirinn.

TAIGHDE AGUS FORBAIRT COMHSHAOIL

- Taighde ar shaincheisteanna comhshaoil a chomhordú (cosúil le caighdeán aer agus uisce, athrú aeráide, bithéagsúlacht, teicneolaíochtaí comhshaoil).

MEASÚNÚ STRAITÉISEACH COMHSHAOIL

- Ag déanamh measúnú ar thionchar phleananna agus chláracha ar chomhshaoil na hÉireann (cosúil le plannanna bainistíochta dramhaíola agus forbartha).

PLEANÁIL, OIDEACHAS AGUS TREOIR CHOMHSHAOIL

- Treoir a thabhairt don phobal agus do thionscal ar cheisteanna comhshaoil éagsúla (m.sh., iarratais ar cheadúnais, seachaint dramhaíola agus rialacháin chomhshaoil).
- Eolas níos fearr ar an gcomhshaoil a scaipeadh (trí cláracha teilifíse comhshaoil agus pacáistí acmhainne do bhunscoileanna agus do mheán-scoileanna).

BAINISTÍOCHT DRAMHAÍOLA FHORGHNÍOMHACH

- Cur chun cinn seachaint agus laghdú dramhaíola trí chomhordú An Chláir Náisiúnta um Chos Dramhaíola, lena n-áirítear cur i bhfeidhm na dTionscnamh Freagrachta Táirgeoirí.
- Cur i bhfeidhm Rialachán ar nós na treoracha maidir le Trealamh Leictreach agus Leictreonach Caite agus le Srianadh Substaintí Guaiseacha agus substaintí a dhéanann ídiú ar an gcrios ózóin.
- Plean Náisiúnta Bainistíochta um Dramhaíl Ghuaiseach a fhorbairt chun dramhaíl ghuaiseach a sheachaint agus a bhainistiú.

STRUCHTÚR NA GNÍOMHAIREACHTA

Bunaíodh an Gníomhaireacht i 1993 chun comhshaoil na hÉireann a chosaint. Tá an eagraíocht á bhainistiú ag Bord lánaimseartha, ar a bhfuil Príomhstíúrthóir agus ceithre Stíúrthóir.

Tá obair na Gníomhaireachta ar siúl trí ceithre Oifig:

- An Oifig Aeráide, Ceadúnaithe agus Úsáide Acmhainní
- An Oifig um Fhorfheidhmiúchán Comhshaoil
- An Oifig um Measúnacht Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáide

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag ball air agus tagann siad le chéile cúpla uair in aghaidh na bliana le plé a dhéanamh ar cheisteanna ar ábhar imní iad agus le comhairle a thabhairt don Bhord.

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