

GREEN LIVING WORKBOOK



TAKE ACTION ON

WASTE



TAKE ACTION ON

ENERGY



TAKE ACTION ON

WATER

GREEN LIVING WORKBOOK



Lower your energy bills

Reduce your waste

Conserve your water

Produced by;

Global Action Plan Ireland 2015

CELLS

This project has been funded with support from the European Commission



This workbook has been printed on FSC certified paper.

FOREWORD

Welcome to Global Action Plan Ireland's (GAP) new Green Living programme workbook! This workbook has been developed to assist individuals who participate in our Green Living programme to explore a range of simple actions that bring about behaviour change in how we manage our waste, water and energy consumption in the home.

The environmental challenges and threats we currently face have never been greater - to such an extent we can often feel overwhelmed to do anything about it. But this does not have to be the case. At the core of all GAP programmes, we believe that the changes we can all make – no matter how big or small, collectively can bring about positive change and be a starting point for creating a more sustainable world.

For individuals to play their part in protecting the planet and to create a more sustainable future, it is important that we feel empowered and equipped to address these challenges. To achieve this we need support and various methods and tools. The Green Living programme is one such method that was designed in response to the global problem of over consumption and the depletion of the planets' finite natural resources. This programme enables participants to reflect on how their behaviour impacts on the world around them and offers practical solutions in reducing these impacts. By changing our behaviour on mass we can make a big difference to climate change and the future of our planet.

I would like to thank all the GAP Ireland team who contributed towards developing and designing this workbook and to our international partners who shared their experience and knowledge as part of this initiative.

We hope you enjoy using this workbook in conjunction with participating in our Green Living programme – this is the first of many steps to becoming an empowered citizen to create a more sustainable world!

Vanessa Moore, CEO Global Action Plan Ireland

TABLE OF CONTENTS

| | |
|------------------------------|----|
| Introduction | 5 |
| Waste | 8 |
| <i>Take Action on Waste</i> | 16 |
| Energy | 27 |
| <i>Take Action on Energy</i> | 32 |
| Water | 43 |
| <i>Take Action on Water</i> | 50 |
| Bibliography | 62 |

INTRODUCTION

Global Action Plan (GAP) was founded in 1989 in the United States, with initial work beginning on developing an Eco household programme in response to the global problem of over consumption and the depletion of the planets' finite natural resources. The programme was designed as a community based campaign enabling large numbers of people to make changes and reduce their consumption habits.

Since these early beginnings, the GAP initiative has grown into the Global Action Plan International network and has spread across the globe to currently 27 countries including Ireland. The Eco household programme remains at the core of GAP's work throughout the globe and is a unique informal and non-formal adult educational initiative.

The GAP International network is today at the forefront of Education for Sustainable Development (ESD) with related programmes for sustainable behaviour change, such as 'carbon neutral' initiatives for households, communities and work places.

Each member organisation is an independent entity with full responsibility in designing and delivering its own programmes and for its own financing and financial management. For more information on Global Action Plan International and our international partners please see; www.globalactionplan.com

GAP IN IRELAND

GAP Ireland was established in 1995. The Eco household programme [known as the Green Living programme in Ireland] – is GAP Ireland's longest running programme and in the early years the programme was delivered to households throughout the country.

In 2000, GAP was invited to deliver an environmental programme to the community of Ballymun as part of Europe's largest regeneration project. Today GAP is still actively involved in the delivery of programmes in the Ballymun community, including initiatives such as community gardening, environmental education programmes in schools and of course delivery of the Green Living programme. Since then, GAP has expanded its reach and now delivers a broad range of environmental programmes and workshops to various communities and groups throughout Ireland.

To find out more about GAP Ireland's work please visit www.globalactioplan.ie

CELLS PROGRAMME

In 2013, as part of an international consortium, GAP Ireland launched the CELLS initiative (Community Environmental Learning Laboratories for Sustainability). The aim of this programme was to improve and accelerate the Green Living programme community learning methodology and to exchange experience with our international partners about the networks longest running programme.

The consortium consists of five diverse European organisations that are all committed to promoting sustainable development and sustainable consumption, including GAP Ireland, GAP Spain, GAP Sweden, GAP International and TVE (Hungary).

The Green Living programme is delivered through team meetings supported by a coach. The environmental impact of participating households is measured before and after the programme. It is a step-by-step process that helps participants to change their lifestyle by making small adjustments that become good habits, benefiting the individual and the planet.

HOW TO USE THIS WORKBOOK

To accompany this programme GAP Ireland has now designed and developed a Green Living programme workbook, organised into the thematic chapters of waste, water and energy. Each chapter provides a National and International context before exploring the ‘big issue’ a little further. The action pages are the primary focus; this is where some simple lifestyle alterations are suggested and the potential impact is highlighted. Each action has been rated on a scale from 1 to 5, with 1 being the least challenging and 5 the most challenging – look out for the muscle guide! The clock symbol will indicate how much time it takes and if an action requires any investment, you’ll see a green money symbol. When an action saves you money on your household bills, you’ll see the blue money symbol – the more you see the more you save! When an action results in reduced carbon dioxide emissions, you’ll see little puffs of gas and if it reduces waste, water and energy consumption then you see these symbols also.



WASTE

Waste management in Ireland has undergone massive transformation over the last decade. As a nation, we have transitioned from near-complete dependence on municipal landfill (80% in 2001), to a much-needed recycling society (Department of Environment, 2012), where 53% of waste in 2011 was sent to landfill, still well above the European Union (EU) average of 37%. Some of this transformation has resulted from EU membership and legally binding Directives such as the Landfill Directive (European Council, 1999) and the later Waste Framework Directive (European Council, 2008). The recession has further reduced our personal consumption and collective municipal waste production, down by 17% since 2007 according to the National Waste Report (Environmental Protection Agency, 2012). Per capita, we produce 20% less total waste (industrial, commercial, household) than the EU average, and 16% less household waste (Environmental Protection Agency, 2012).

However, we still have a long way to go. In 2011, “nearly half of hazardous waste managed...and over 70% of municipal recyclables such as cardboard, glass and metals were exported for treatment due to limited recovery infrastructure for these waste streams in Ireland” (Environmental Protection Agency, 2012). “The UK and mainland Europe are the main destination for recycled materials exported from Ireland. Asia and China account for less than 15% of direct recycling exports” (Repak, 2015). In 2012, the Environmental Protection Agency

(EPA) estimated that between the 15 Municipal Waste Landfill sites, which are operating in Ireland, there is approximately 11 years capacity remaining, with volumes expected to increase each year owing to economic recovery.

THE BIG WASTE ISSUE

“One third of the food we buy ends up in the bin” (Environmental Protection Agency, 2012). On average in 2012, a quarter of Ireland’s household general waste bins contained food waste. This potentially costs the average household in Ireland €1000 per annum! Take a family of four - if you put out your 240litre general waste bin, every 2 weeks, at approximately €7 per lift (taking into consideration average flat rate fees), that’s €182 per year, of which a quarter is food (€45.50), but you had to also buy that food in the first place. If that same family spends €100 per week on groceries, that’s €5200 per year, of which, they potentially throw out one third. Not only does that family throw out up to €1733 in food waste, but they are also paying €45.50 for the privilege to do so!

Out of sight is out of mind, right? Wrong! As previously mentioned, Ireland is rapidly running out of landfill capacity, so why are we still exporting hundreds of kilotonnes of biodegradable and recyclable material each year? Instead of streaming them to landfill or even exporting these materials, we could invest that budget in facilities to cope with the volumes produced. The remaining issue is that people generally object to large treatment facilities in the vicinity of their neighbourhood. What are your opinions of recycling processing plants?

WHICH BIN?

60% of household waste is either compostable or recyclable, however, in 2013, the EPA reported that 67% of household waste collected at curbside was from the residual (general) waste bin. 24% was collected from the dry recycling bins and just 8% was collected from the organic waste bins (Environmental Protection Agency, 2013). Service providers vary quite a bit, so always check at the source what can be put in which bin. For example, some bin companies accept glass, but most won't. Bring Centres and glass recycling facilities will happily take all of your glass bottles and jars when you're finished with them.

Green Bin

Allowed

- All Paper
- Cardboard (Cereal / biscuit Boxes, Cardboard Packaging)
- Food Tins / Drink Cans
- Tetra-Pak (Milk, Soup & Juice Cartons)
- All Plastics Including Plastic Bottles (PET) (HDPE) (PP) (Mineral, Water and Detergent bottles)

NOT Allowed

- No Glass / Ceramics
- No Green Waste (Kitchen or Garden)
- No Aerosols
- No Meat Wrappings
- No Nappies / Sanitary Items





Brown Bin

Allowed

- Coffee grounds and filters
- Cooked and raw foods
- Dairy products
- Egg and egg shells
- Fruits/vegetables and peelings
- Tealeaves and tea bags
- Meat, bones and fish (including fish shells)
- Hedge clippings / Twigs and branches (maximum 2 inch diameter)
- Leaves / Plants / Weeds / Grass

NOT Allowed

- Ashes
- Nappies
- Fast food cup lids
- Glass, metal and plastic
- Medical waste
- Plastic bags





Black Bin

Allowed

- All General Waste – (Nappies, soiled food packaging, old candles, Plasters etc.)

NOT Allowed

- Hot Ashes
- Oils or Liquids
- Used Batteries





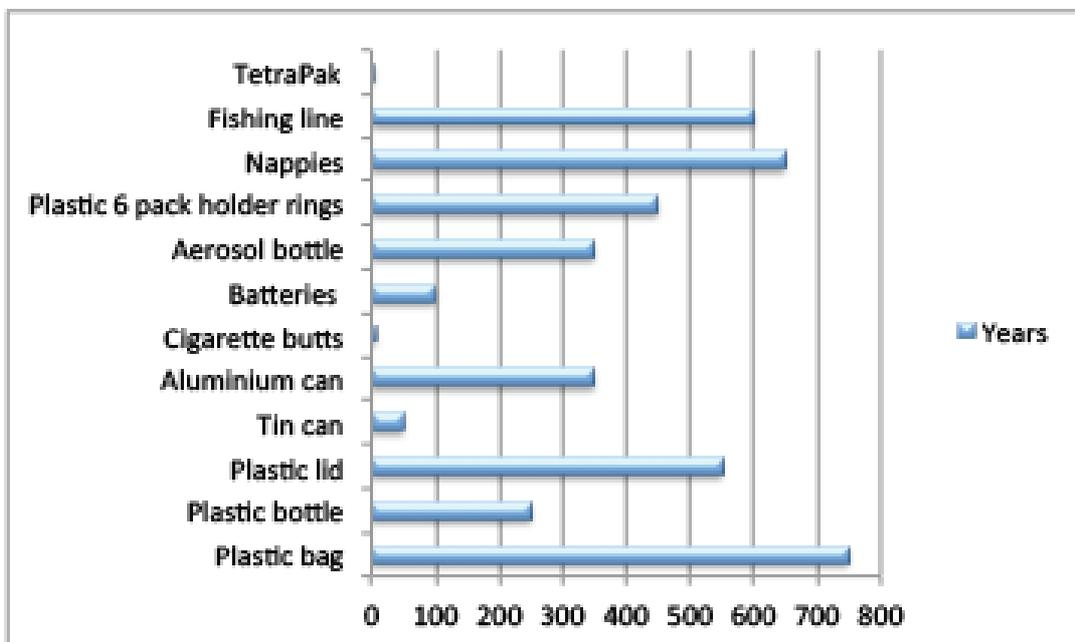
Source; www.project.greyhound.ie

HOW LONG DOES IT TAKE TO BREAK DOWN?

Now you know how to separate your waste, let's take a look at how long waste takes to break down! Many degradable, biodegradable and compostable waste items unfortunately end up in landfill where they cannot be repurposed.

Did you know that leather shoes can biodegrade in under 35 years? Wool takes just 2-5 years while cotton balls biodegrade in 3-5 months in the right conditions!

Compost dead flowers and leaves in as little as 3 months. Tea bags take just 2 months while shredded newspaper requires 6 weeks. Apple cores and banana peels, which provide great nutrition for your soil, will turn to soil themselves in around 1 month. Give composting a go today!



DEGRADABLE -V- COMPOSTABLE

Many items now carry the label ‘degradable’ or ‘biodegradable’, and some are even ‘compostable’. But what does that all mean? And how do we know that these labels are being used correctly? The honest truth is, we don’t. There is a dearth of legal definitions, and many items have been labeled, in what could be considered as, misleading.

So what’s the difference? Degradable items are broadly categorised as waste that will break down in some way, over an unspecified period of time. Photodegradable waste breaks down under ultraviolet light, while oxidative waste breaks down as a result of thermal exposure (Going Green Solutions, 2010). Oxford University Press has defined biodegradable waste as those items that are “capable of being decomposed by bacteria or other living organisms” (Oxford Dictionaries, 2014) such as fungi and algae, usually within a six-month timeframe. Most of these microorganisms need light, water, oxygen and a certain temperature in order to effectively biodegrade waste; this is why material such as tree leaves, newspapers and food waste do not promptly biodegrade in landfills! The important factor in identifying biodegradable waste is that it completely breaks down into natural raw materials such as carbon dioxide, water, inorganic compounds and biomass; disappearing into the environment. In contrast, compostable waste must have the ability to break down into humus (Science Learning, 2008). This is the term used to describe organic material that reaches a point of stability and can, most importantly, offer nutrients to soil and plants.

TOP TIPS!

There are so many things that you can do to waste less! Here are some top tips to help you help your environment – but don't forget the best thing you can do, is tell others what you're doing and why! Rethink what you think you know! The more people who rethink their action on waste, the more sustainable our society will become.

Refuse to use! Say no to disposable plastic bags, nappies, daily public transport tickets, junk mail, goods with unnecessary packaging, tin foil and polystyrene cups! Say hello to bags for life, eco-friendly nappies, travel cards, loose fruit and vegetables, recycled packaging and reusable water bottles and travel mugs.

Reduce that produce! Pack a waste free lunch, keep leftovers for a snack the next day, or freeze them. Try to buy refill packs (e.g. coffee) and bulk buy larger packets instead of individual portions (e.g. yoghurts, juice, cereal etc.). Buy concentrates instead of diluted products (e.g. laundry eco-wash balls).

Choose to reuse! Buy and sell second-hand items, repair instead of replace (e.g. bicycles and appliances), buy reusable instead of disposable (e.g. razors and nappies), donate old durable goods to charity (e.g. fridge or couch), re-use gift bags and any paper, re-use glass jars instead of buying storage containers, tumbler glasses or candle holders.

Recycle that item! If it can't be reused, separate your waste! Keep an old cardboard box handy for any glass you won't reuse and take it to a Bring Bank or other recycling facility every other month. Find out who your waste collection provider is and exactly what can be put in your recycling bin. Most green bins

will take all clean, dry papers, plastics, aluminium and tin cans as well as TetraPak!

Rot the lot! Start a compost bin/heap for food (e.g. fruit, vegetables, teabags etc.) and garden waste (e.g. leaves, grass etc.), use your organic waste bin for any food waste you don't want in your compost bin (e.g. meat, dairy) and buy biodegradable!

Discover recovery! As a final solution to leftover waste, learn more about how it can be used to generate biogas and electricity, reducing waste sent to landfill. Ireland is a step behind other countries in Europe – it's time we properly invested in this type of infrastructure, before our landfills overflow! In 2013, 327 kilotonnes of municipal residual wastes (including household waste), “were used for energy recovery in Ireland and 300 kilotonnes were exported for use as a fuel” (Environmental Protection Agency, 2013).