

All-Ireland Pollinator Plan 2021-2025

www.pollinators.ie

YEAR 1 REVIEW

DECEMBER 2021



An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



An initiative by
BORD BIA
IRISH FOOD BOARD

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This is a report to the National Biodiversity Data Centre on progress with delivery of the actions under the All-Ireland Pollinator Plan 2021-25. Report compiled by Úna FitzPatrick.

Background

One third of our 99 wild bee species are threatened with extinction from the island of Ireland. We know it is because we have drastically reduced the areas where they can nest and the amount of food our landscape provides for them. In publishing the first All-Ireland Pollinator Plan (AIPP) in 2015, Ireland became one of the first countries in Europe to address pollinators declines and the Plan has since gained international acclaim. The first AIPP was developed from the grass roots up, to ensure we have an island that's better for biodiversity; better for pollinators; better for us; and better for future generations. It is a *shared* action plan. Together, we can collectively take steps to restore our pollinator populations to healthy levels.

A 16-member all-island steering group provide oversight of the All-Ireland Pollinator Plan. The Plan is managed by the National Biodiversity Data Centre. The National Biodiversity Data Centre is funded by *The Heritage Council* and the *Department of Housing, Local Government and Heritage*. It is a programme of *The Heritage Council*.

The 81 actions in the first AIPP for 2015-2020 have been delivered. In the first phase we wanted to ensure that everyone understood what pollinators need, and what simple, evidence-based actions they can take to help. Extensive guidelines were developed for everyone from farmers to councils, communities, businesses, schools, sports clubs and gardens. These are all freely available at www.pollinators.ie

- [Final review of the AIPP 2015-2020](#)
- [Working together for biodiversity – Tales from the All-Ireland Pollinator Plan 2015-2020](#)

All-Ireland Pollinator Plan 2021-2025

A new version of the [AIPP for 2021-2025](#) was published in March 2021. It is more ambitious than the last – with more partners coming together to deliver even more actions. Pollinators are better off than they were five years ago, but we still need to do more. The new plan has more than doubled our goals – with 186 actions to help biodiversity. As we look forward to the next five years, we need to engage more, monitor more, and manage more land for biodiversity.

The AIPP 2021-2025 identifies specific actions across six objectives. Within each objective, targets have been set and actions have been identified to help achieve that target.

- Objective 1: Making farmland pollinator friendly
- Objective 2: Making public land pollinator friendly
- Objective 3: Making private land pollinator friendly
- Objective 4: All-Ireland Honey bee Strategy
- Objective 5: Conserving rare pollinators
- Objective 6: Strategic coordination of the Plan

AIPP partners

Partner organisations are those who have committed to delivering the 186 actions in the All-Ireland Pollinator Plan 2021-2025. They also include those Councils who have formally signed up to the AIPP and agreed to take actions to support pollinators on the public land they manage.

<https://pollinators.ie/partners/>

Funding partners



National Parks &
Wildlife Service



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



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Implementation of the All-Ireland Pollinator Plan 2021-2025 is project managed by the National Biodiversity Data Centre, which is a programme of the Heritage Council. Dr Úna FitzPatrick, Senior Ecologist within the Centre, oversees the initiative. It is supported by an additional three project officer positions within the National Biodiversity Data Centre:

- ✓ The National Parks and Wildlife Service have committed to funding a full-time project officer to support implementation of the public and private land actions (previously Juanita Browne, position currently being refilled).
- ✓ The Department of Agriculture, Food & the Marine have committed to funding a full-time project officer to support implementation of the farmland actions (Ruth Wilson).
- ✓ Bord Bia have agreed to provide funding to support the growing network of business supporters and ensure the actions they take are evidence-based and effective (Sarah Kelly).

Tracking progress

Tracking progress is a critical component of the All-Ireland Pollinator Plan. It is addressed in a number of ways:

- ✓ Each year, an annual review document is made publicly available to indicate progress against each of the 186 actions in the Plan, completed by those organisations who have accepted responsibility for that action. This is the first of those review documents for the second phase of the Plan (December 2021).
- ✓ Two other annual reviews are also published each December:
 - [Council partners: 2021 annual review](#). This outlines the key actions taken by each Council partner in support of the AIPP:
 - [Business supporters: 2021 annual review](#). This outlines the key actions taken by each company who has signed up as a business supporter of the AIPP:
- ✓ A publicly available online mapping system (Actions for Pollinators) allows all those who take pollinator-friendly actions to log their location and the action(s) taken. This tracks progress through the build-up of food, shelter and safety for pollinators in the landscape. The

biodiversity actions mapping system was developed by the National Biodiversity Data Centre and was released in spring 2017: <https://pollinators.biodiversityireland.ie/>

- ✓ Most importantly, changes in the pollinators themselves will be monitored. This occurs through two citizen science monitoring schemes managed by the National Biodiversity Data Centre – All-Ireland Bumblebee Monitoring Scheme (established 2012) and Flower Insect Timed Counts (established 2019). The need for an additional randomly stratified national monitoring scheme to underpin the AIPP has consistently been flagged. In 2021, DAFM and NPWS granted initial funding for this work in RoI. The project began in September 2021 and will be rolled out as a National Pollinator Monitoring Scheme pilot in 2022. It is managed by the National Biodiversity Data Centre. 50 sites will be monitored across farmland, semi-natural sites, and urban parks. In 2020, Northern Ireland joined the UK Pollinator Monitoring Scheme. Both schemes are fully compatible, allowing island-wide analyses in future years.

AIPP 2021 review

This document briefly outlines key progress in 2021. This is followed by a 2021 update against each of the 186 actions in the Plan, completed by the organisation who accepted responsibility for that action.

An accompanying one-page infographic has also been prepared to summarise key progress in 2021.

For each action, the respective partner was contacted and requested to provide a short update against their action for 2021. They were contacted twice by email. This was not policed. Where a 2021 update was not provided, this is stated. We thank the partners for their incredibly positive engagement with this process.

The National Biodiversity Data Centre oversees implementation of the AIPP. The Centre is a programme of the Heritage Council. Before publication, this report is signed off by the Heritage Council and the Advisory Board of the National Biodiversity Data Centre.

Key Progress in 2021 (until end November)

- ✓ The second phase of the AIPP was launched at the end of March 2021. Already we are seeing very positive engagement and real commitment from all our partners. As outlined below, 81% of the 186 actions in the Plan have been completed for this year or are currently in train.
- ✓ Thirty-six of the 42 Councils across the island (86%) have now formally partnered with the AIPP and have committed to taking actions on the public lands they manage. An additional 10 Councils have joined the Plan in 2021 (until end November). Local Authorities have embraced the AIPP and are taking significant actions for pollinators and biodiversity, as evidenced in their 2021 annual review: All-Ireland Pollinator Plan (2021): [Council Partners - Annual Review](#).
- ✓ Good progress continues to be made with the farming sector. Already in this new phase, we have been able to engage much more widely with farming stakeholders. A series of new resources for farmers are in development. The National Biodiversity Data Centre instigated an annual May 'Festival of Farmland Biodiversity' which launched in 2021 and is supported by the Farmland Pollinator Officer. The EIP research project, 'Protecting Farmland Pollinators'

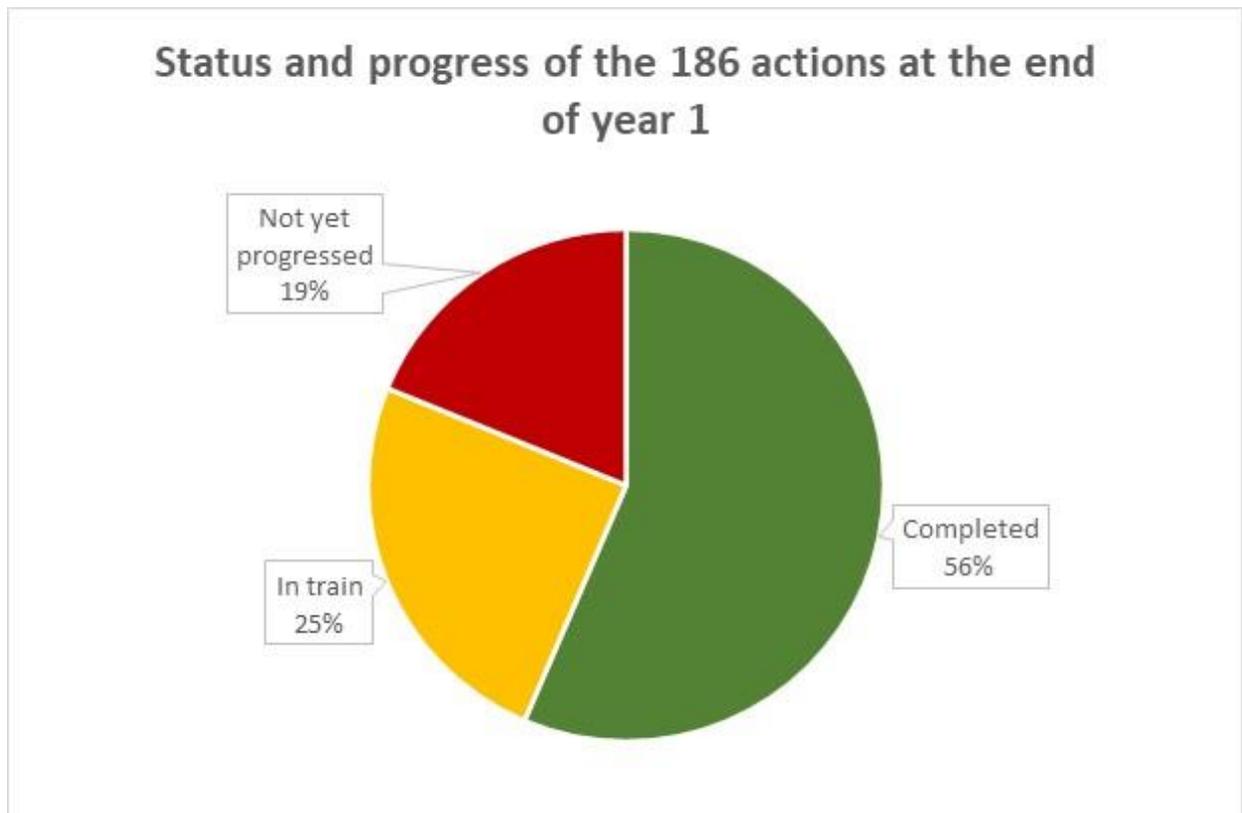
managed by the Data Centre, continues to generate evidence-based information on the best actions to make Irish farms pollinator-friendly, underpinning the AIPP.

- ✓ Funded by DAFM and NPWS, a National Pollinator Monitoring Scheme will be piloted in 2022. 50 sites will be monitored across farmland, semi-natural sites, and urban parks. This will provide important baseline data and allow the impact of the AIPP to be fully assessed into the future.
- ✓ Local Communities continue to carry out inspiring work in support of the All-Ireland Pollinator Plan. The Local Authority Pollinator Award aims to encourage Tidy Towns groups to implement pollinator-friendly actions in their towns and villages as part of the Tidy Towns competition. It is coordinated and sponsored by the Heritage Offices and Biodiversity Offices of Local Authorities across Ireland, in partnership with the National Biodiversity Data Centre. To date more than 200 communities have become pollinator friendly through the award. In 2021, 55% of entries were from new entrants. Congratulations to the overall 2021 winner, Bunrana Tidy Towns in Co Donegal.
- ✓ The Business supporters network continues to grow. Up until the end of October 2021, an additional 133 companies joined the Plan this year. In joining, they commit to taking evidence-based actions for pollinators and reporting on their activities. This brought the total number of business supporters to 416. However, as of 2021, annual reporting for Businesses is now mandatory. To maintain the integrity of the network, those who did not submit an update of their activities in support of the Plan have been removed from the list/website (they can reengage at any point). The adjustment is reflected in the overall figure for 2021 which now stands at **327 business supporters**. These companies are all taking genuine actions for biodiversity.
- ✓ In 2021, the AIPP has continued its efforts to proactively engage with new sectors. These have included: GAA, Irish Science Teachers Association, Gaisce, Society of Chartered Surveyors Ireland, Hospitals, NI Housing Executive, Aviation sector, NI Education Authority.
- ✓ The first phase of the AIPP for 2015-2020 saw many resources published and made freely available online: 11 evidence-based guideline documents for different sectors and an additional 7 how-to-guides, as well as numerous flyers. In 2021, we published a new guideline document for Wind Farms, and developed new flyers for gardens and farms. A series of additional resources are currently in train for the following sectors: Housing developments (new and existing), Forestry, Equine industry, Aviation.
- ✓ 2021 has seen wide-scale promotion of the AIPP both nationally and internationally. We thank all those partners and initiatives who have helped raise the profile of the Plan this year. *Plean Bee*: A TG4 documentary on pollinators and the AIPP was released on the 20th May 2021. It was made by Deaglán Ó Mocháin of Dearcán Media. World Bee Day 2021 also saw a major awareness campaign run in partnership with the Irish Examiner. 200,000 copies of a 40-page booklet on the All-Ireland Pollinator Plan were distributed. To mark their 35th anniversary, the AIPP was delighted to partner with Gaisce on a large public campaign - 'Bulbs for Bees'.

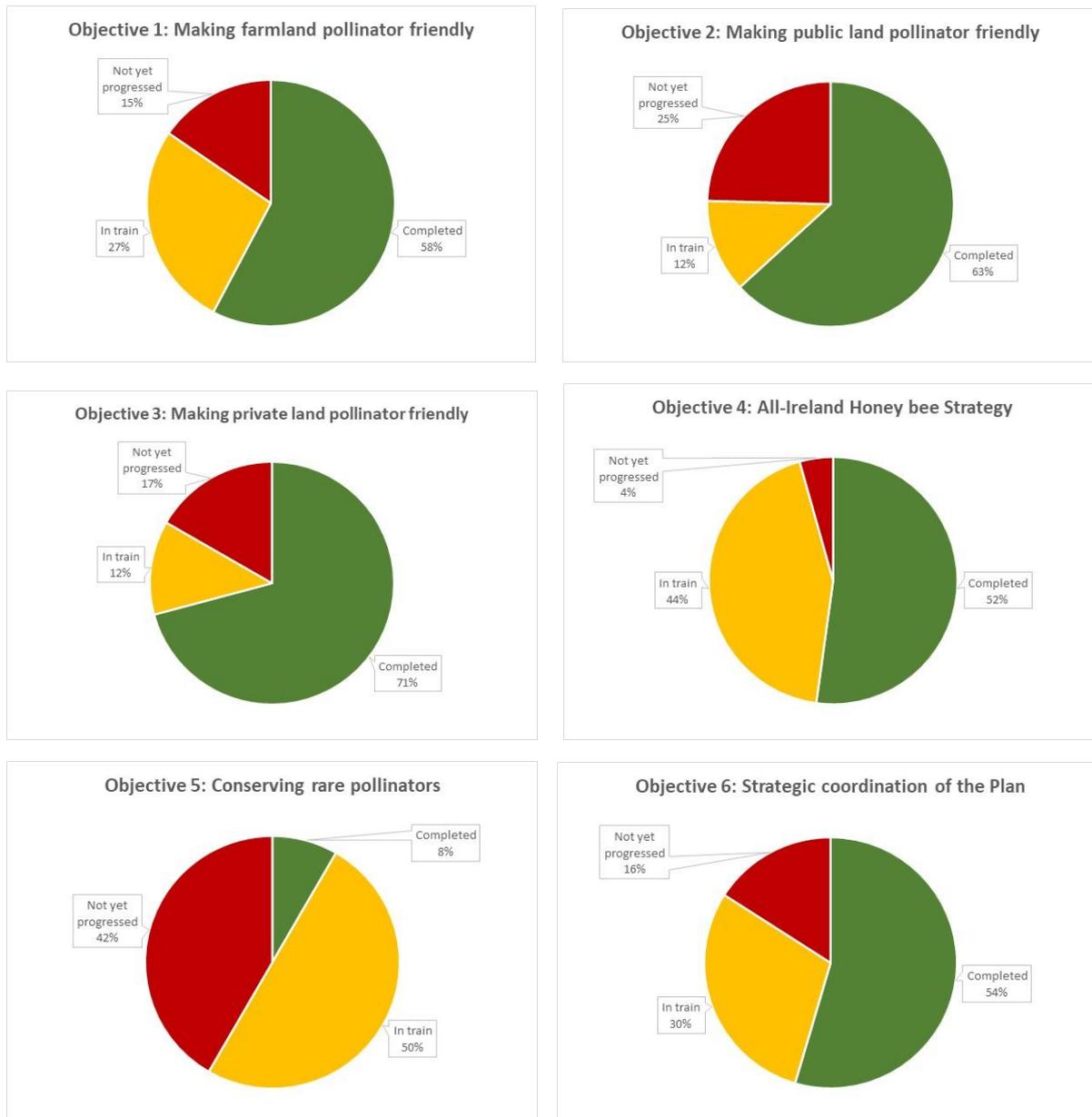
Actions completed end Year 1 (2021)

The second phase of the AIPP for 2021-2025 launched at the end of March 2021. Of the 186 actions in the Plan; 105 have been completed this year as agreed (56%), 46 are in train (25%) and 35 have not yet been progressed (19%). Some actions are discrete (once-off) while many are annually rolling actions.

	Agreed action has taken place in 2021
	Action has been started and is in train
	Action not yet progressed



Progress within each objective at the of Year 1 is outlined below:



Objective 6 includes 18 research actions, many of which will be funding dependent

Acknowledgements

The All-Ireland Pollinator Plan is a *shared plan of action*. It is about all of us coming together to try to create an island where pollinators can survive and thrive. On behalf of the Steering Group, we extend our thanks to all the partners involved in the Plan. Progress to date is entirely due to their support, goodwill, and enthusiasm. We also extend our enormous thanks to all those members of the public – whether in their garden, farm, park, school, local community, faith community or business property – who have expressed their support and engaged with the Plan in its first six years.

ALL-IRELAND POLLINATOR PLAN 2021-2025: 186 ACTIONS TO HELP POLLINATORS REVIEW OF PROGRESS YEAR 1 (2021)

Updates under each of the 186 actions have been provided by the organisations responsible. Partners were contacted twice by email with a request to provide a short update on progress. This was not policed. The traffic light system to quickly show progress under each action has been added by the Steering Group. Some actions are discrete (once-off) but the majority are annually rolling actions. Where they have been completed for 2021 these are coded green.

	Agreed action has taken place in 2021
	Action has been started and is in train
	Action not yet progressed

OBJECTIVE 1: MAKING FARMLAND POLLINATOR FRIENDLY

Target 1.1 Increase the amount of farmland that is managed in a pollinator-friendly way

	Action	Progress measure	Responsibility	Progress by November 2021	
1	Incorporate relevant evidence-based pollinator-friendly actions and prescriptions into agricultural and agri-environment schemes in Republic of Ireland (RoI).	<ul style="list-style-type: none"> Incorporation of pollinator conservation actions into agri-environment schemes Uptake by farmers 	Department of Agriculture, Food and the Marine (DAFM)	<p>GLAS (Green Low-Carbon Agri-Environmental Scheme) under the Rural Development Programme was rolled over for the CAP Transitional Period (2021-2022). GLAS has several specific pollinator measures but also a range of biodiversity measures which provide benefits to pollinators. The GLAS uptake was approx. 50,000 farmers and approx 48,200 participants extended their contracts.</p> <p>As part of the EIP funding stream under the Rural Development Programme, DAFM awarded €1,194,697 to the Protecting Farmland Pollinators EIP. The Pilot</p>	

				<p>Project has 40 famers signed up to a results-based payment scheme.</p> <p>Under EIP call 5 the Farmer Moth Monitoring Project and the Great Yellow Bumblebee project commenced in 2021.</p> <p>DAFM launched REAP in 2021 Under the Transition CAP Period. REAP will pilot the use of results-based scorecards for grasslands and field margins. REAP will focus on improving existing farm features rather than the creation of new features and habitats and should result in benefits for pollinators through improvement of biodiversity and habitats. The farmer participation is approximately 3,750.</p> <p>Development of the next CAP and Agri-environmental schemes is currently underway. The learnings from the Protecting Farmland Pollinators EIP will be considered in the design of biodiversity and habitat measures and specifications.</p>
2	Incorporate relevant evidence-based pollinator-friendly actions and prescriptions into existing agricultural and agri-environment schemes in Northern Ireland (NI).	<ul style="list-style-type: none"> • Incorporation of pollinator conservation actions into existing agri-environment schemes • Uptake by farmers 	Department of Agriculture, Environment and Rural Affairs (DAERA)	<p>The Environment Farming Scheme (EFS) first opened for applications in 2017. After four tranches, 42 agreements contain the ‘Creation of Pollinator Margins – Annual Wildflower’ option and 3 agreements contain the ‘Creation of Pollinator Margins – Pollen and Nectar’ option.</p> <p>Both options aim to support pollinators.</p>

				<p>Tranche 5 of EFS opened in 2021. Once Tranche 5 applications have been validated by DAERA, agreements are planned to commence in January 2022.</p> <p>Tranche 6 of EFS is planned to open for applications in 2022.</p>
3	Encourage more organic farming (which has been shown to support more pollinators).	<ul style="list-style-type: none"> • Participation in the Organic Farming Scheme 	DAFM	In 2021 there are approximately 1,800 farmers in the Organic Farming Scheme. As part of the Agri Food Strategy targets DAFM has committed to at least 7.5% of utilisable agricultural area is targeted to be farmed organically by 2030.
4	Establish a network of stakeholders, including agri-businesses who agree to manage their own farms or test sites in a pollinator-friendly way, e.g., DAFM, AFBI, individual agri-businesses.	<ul style="list-style-type: none"> • Networks of sites identified • Progress reported annually • Sites used to develop case studies which are shared within the network 	AIPP Farmland Officer	<p>This network is still in the early stages of development and will be further progressed in 2022. In the future, it will be linked to the tools being developed within the National Biodiversity Data Centre's EIP project 2019-2023 on 'Protecting Farmland Pollinators'. This project is developing a simple system to establish a whole-farm pollinator score, based on the habitats present. This is linked to simple management actions to improve the score.</p> <p>Many agri-businesses are currently being supported through the AIPP business supporter's framework (Action 89). These include companies like ABP, Boortmalt, Country Crest, Dawn Meats, Irish Country Meats, Kepak, Lakeland Dairies. More than 70 agri-food companies are currently business supporters of the AIPP.</p>

Target 1.2 Encourage the sustainable use of agricultural pesticides (insecticides, fungicides, herbicides)

	Action	Progress measure	Responsibility	Progress by November 2021
5	Encourage the responsible and sustainable use of pesticides (insecticides, herbicides and fungicides) in RoI.	<ul style="list-style-type: none"> Through the National Action Plan for the Sustainable Use of Pesticides, encourage farmers to minimise the impact of pesticides on pollinators 	DAFM	DAFM have produced guidance notes on Integrated Pest Management which provides farmers with a tool to assist them make the most appropriate and environmentally sound crop protection decision. In addition, DAFM have finalised a decision support document to support responsible pesticide use in public, amenity and garden areas. This document helps the user decide on whether intervention is necessary or not and if intervention is deemed necessary, it presents the options to solve the pest problem. The Office of Public Works has produced guidance document on using Plant Protection Products which is endorsed by DAFM. This guidance document will ensure responsible use of PPPs by government actors. Additional users, advisers, distributors and inspectors continue to be trained which all assists in the responsible and safe use of pesticides.
6	Encourage the responsible and sustainable use of pesticides (insecticides, herbicides and fungicides) in NI.	<ul style="list-style-type: none"> Through the UK National Action Plan for the Sustainable Use of Pesticides (Plant Protection Products) and DAERA Integrated Pest Management Guidance, encourage farmers to minimise the impact of pesticides on pollinators Support the UK-wide Voluntary Initiative on 	<p>DAERA/Agri-Food and Biosciences Institute (AFBI)</p> <p>Ulster Farmers' Union (UFU)</p>	<p>AFBI: Ongoing work. AFBI projects emphasise integrated pest management for pest species with current projects on leatherjackets and aphids. For example, use of a suction trap provides an alert for cereal growers as to aphid migration with the intent of avoiding prophylactic insecticide applications https://eservices.afbini.gov.uk/aphidmonitoring/cereal-aphid.html</p> <p>The UFU continue to support the UK-wide Voluntary Initiative on responsible pesticide use.</p>

		Promoting Responsible Pesticide Use		
7	Summarise and publish annual trends in agricultural pesticide use across the island.	<ul style="list-style-type: none"> Summarised trends published for RoI Summarised trends published for NI 	DAFM and AFBI	<p>DAFM continues to conduct, with technical support from AFBI, pesticide usage surveys. Copies of the most recent reports can be found using this link https://www.pcs.agriculture.gov.ie/sud/pesticidestatistics/</p> <p>In addition, DAFM publish annual pesticide sales data and can be viewed using the same link above.</p> <p>AFBI: Pesticide usage reports are available at: https://www.afbini.gov.uk/articles/pesticide-usage-monitoring-surveys</p>

Target 1.3 Provide clear information and training on pollinators to the farming community

	Action	Progress measure	Responsibility	Progress by November 2021
8	Establish an All-Ireland farming subgroup to advise and steer on pollinator actions for farmland from the farmers' perspective.	<ul style="list-style-type: none"> Establish the subgroup Group meeting at least annually, either in person or remotely 	AIPP Project Manager, supported by Farmland Officer	This small subgroup has been established. It currently has 10 members from across farm types and includes members from both the Republic of Ireland and Northern Ireland. It has been agreed that the group will advise on one specific pollinator issue every 6-months. The first of these was to provide input into new resources currently being developed.
9	Provide comprehensive and freely available online resources for the farming sector at	<ul style="list-style-type: none"> Up-to-date resources provided on the website To include: evidence-based guideline documents, flyers, videos, blogs, webinars, presentations, case studies, animations 	AIPP Farmland Officer	<p>This website is maintained at www.pollinators.ie/farmland</p> <p>New blogs have been published across 2021, but additional new content has not yet been added.</p>

		<ul style="list-style-type: none"> All 2015–2020 resources to be updated where necessary 		<p>An infographic showing pollinator friendly actions on the farm for each of the four seasons has been developed and will be launched in early 2022.</p>	
10	<p>Establish a knowledge exchange programme for farmers on protecting pollinators.</p>	<ul style="list-style-type: none"> Knowledge exchange programme developed and rolled out Farmer participation 	<p>DAFM, Teagasc, College of Agriculture, Food and Rural Enterprise (CAFRE)</p>	<p>DAFM: As part of the CAP transition period funding DAFM has a budget of 1 million for Advisor CPD. This training will include a module on Biodiversity Conservation with material on pollinators and their habitats. Advisors will also receive additional training through the Agri Environment Training Scheme (AETS) which presentations focusing on biodiversity and the importance of wildlife habitats.</p> <p>Teagasc: Teagasc Environment Knowledge Exchange programme including biodiversity including protecting pollinators delivered to:</p> <ul style="list-style-type: none"> 40,000 farmer clients through Teagasc client publications (Newsletter and Today's Farm) Teagasc Biodiversity Management Practice Self-Assessment Tool developed and used in Discussion Groups Courses for Derogation farmer clients Specific biodiversity advice to 15,000 farmers in GLAS BURREN Programme, REAP, Hen Harrier Project, Pearl Mussel Project, Wild Atlantic Nature, Corncrake LIFE, Farm PEAT, NPWS Farm Plans, Comeragh Upland Communities, SUAS and other EIPs Biodiversity knowledge exchange to all 140,000 farmers, private advisors and the agri-environment industry through national and 	

				<p>regional print media, tv, radio, podcasts and webinars eg Signpost</p> <p>CAFRE: Farm management for pollinators is part of the CAFRE delivery to 400 farmers on Environmental Business Development Groups. Hedgerow management to assist pollinators is part of an ongoing CAFRE information campaign.</p>
11	Agricultural colleges to support training and awareness-raising in ROI.	<ul style="list-style-type: none"> • Adoption of pollinator-friendly management within college sites as a teaching and awareness-raising tool • Incorporation of material on the identification and conservation of pollinators within relevant teaching programmes 	Teagasc	Biodiversity Plans have been developed for Teagasc agricultural colleges with habitats identified and targets agreed to increase habits and improve biodiversity management practices as a resource for training and awareness-raising of biodiversity including protecting pollinators. To be reviewed and amended annually.
12	Agricultural colleges to support training and awareness-raising in NI.	<ul style="list-style-type: none"> • Adoption of pollinator-friendly management within college sites as a teaching and awareness-raising tool • Incorporation of material on the identification and conservation of pollinators within relevant teaching programmes 	CAFRE	CAFRE farm hedgerow management protocol is now in the 4th winter of a mixed hedge cutting & hedge sapling strategy designed to provide floral opportunity within each field or land block annually. 5 types of arable & grassland margins of use to pollinators have been installed. A volunteer butterfly monitoring transect has been established to monitor the impact of the margins. Farm management for pollinators is part of the CAFRE Level 3 course.
13	Farming organisations and agricultural networks to promote pollinator-friendly	<ul style="list-style-type: none"> • Partner organisations to promote pollinator-friendly actions • Those listed under responsibility agreed to this action at time of publication 	UFU, Irish Organic Association, Organic Trust, others to agree	<p>UFU:</p> <p>UFU has continued to promote farmland pollinator actions to members. Information and the Pollinator Farmland Guidance has been shared with members through the agricultural press, social media posts and</p>

	actions to their members.		<p>the UFU e-bulletin. The UFU ran a social media campaign on farmland hedges 17-21 May 2021 outlining the benefits and positive aspects of farmland hedges and as part of this there was a particular focus on pollinators on World Bee Day (20th May). Any new information or guidance that is produced by the All-Ireland Pollinator Plan project and is relevant to farmers/farming families is automatically shared with our members on social media and through the UFU e-bulletin.</p> <p>Irish Organic Association: Through our magazine Organic Matters and regular e-newsletter to Irish Organic Association members we continue to promote pollinator-friendly actions that members can achieve through their farming practices.</p> <p>Organic Trust: Organic Trust CLG remains committed to making the island of Ireland more pollinator-friendly and the objective of making farmland more pollinator friendly remains at the heart of the farming endeavours which we certify. We aim to ensure crop pollination, wild plant pollination and to continue to nurture the diversity of pollinators on our island as study after study confirms that maintaining pollinator diversity keeps agricultural systems and natural ecosystems resilient – co-dependant from a singularly positive perspective. In this respect the Organic Trust continues to promote pollinator-friendly actions to our members; stresses the importance of the</p>	
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				<p>Pollinator Plan 2021-2025 on our website and promotes the Plan to our members within our organic journal Clover and within our monthly E-Newsletter Organic Trust News. Mutually beneficial endeavours are still being identified so that the pollinator-friendly actions we promote, gain as wide an audience as possible so that the results of our efforts are both robust and effective. This promotion is in the early stages of the 2021-2025 All-Ireland Pollinator Plan and our intention is that this will gain further traction over the life of the Plan. Going forward, we intend to continue our support of the AIPP through the numerous platforms available to us and to strongly encourage our members to actively engage with the proposals contained within the 186 actions of the 2021-2015 Pollinator Plan.</p>	
14	Publish a guideline document outlining evidence-based pollinator actions for forestry.	<ul style="list-style-type: none"> • Publication of guidelines for forestry • Dissemination to all relevant bodies 	AIPP Farmland Officer and relevant partners	This guideline is in train. A first draft has been produced and we are currently engaging with others in the sector to get their input	
15	Publish a guideline document that links pollinator/biodiversity actions to their carbon/climate benefits on farmland.	<ul style="list-style-type: none"> • Collation of all relevant research necessary for this document • Publication when a sufficient evidence base is in place 	AIPP Farmland Officer and relevant partners	This has not been progressed yet. It is an active research area, and it has been decided to wait until a more complete evidence-base is in place.	
16	Publish other new evidence-based pollinator guideline	<ul style="list-style-type: none"> • Investigate which guideline documents are required and prioritise a programme for 	AIPP Farmland Officer and relevant partners	This action is being progressed. An initial guideline for the equine industry is in development.	

	documents for the farming sector as necessary.	<p>their development. May include, but not limited to:</p> <ul style="list-style-type: none"> - Pollinator-friendly management of stud farms (equine industry) - Integration of pollinator-friendly guidelines into the Agricultural Catchments Programme • - Development of pollinator-friendly guidelines for archaeological sites on farmland 		<p>A paper on pollinator-friendly margins is in the final stages of completion.</p> <p>A simple how-to-guide on orchards is also in development.</p>	
17	Promote best practice in the use of imported bumblebee colonies.	<ul style="list-style-type: none"> • Relevant organisations to disseminate the evidence-based guideline document: <i>Guidelines for users of imported bumblebee colonies</i> (AIPP, 2020) 	Teagasc, DAERA	The guidelines are promoted where relevant	
18	Promote the AIPP at key agricultural events.	<ul style="list-style-type: none"> • Attendance at the National Ploughing Championship, ROI • Attendance at the Balmoral Show, NI • Attendance at other relevant agricultural events 	AIPP Farmland Officer	It was impossible to attend events in 2021 due to Covid restrictions	

Target 1.4 Raise awareness and celebrate pollinator diversity on Irish farmland

	Action	Progress measure	Responsibility	Progress by November 2021	
19	Investigate the potential for an All-Ireland farmland meadow competition.	<ul style="list-style-type: none"> • Scoping study on a potential meadow competition to celebrate the diversity and importance of natural farmland meadows for pollinators/biodiversity • Should link to future agri-environment initiatives where appropriate • Should build on learning from the Save our Magnificent Meadows project in NI (2014–2017) • To include an investigation of the potential for a green hay exchange • To include an investigation into creating a future donor site map for wildflower seed collection for local restoration projects • If funding is sourced, this should be rolled out on a gradual scale as the first building block in creating a network of flower-rich meadows across farmland 	<p>Coordinated by AIPP Farmland Officer</p> <p>Needs a funding body/sponsor</p>	Discussions have begun on this action with the NPWS and DAFM. They are currently focused on what a competition would look like and how it could potentially be rolled out in future years. The AIPP Farmland Officer has established a database to collate information on the location of good quality meadow sites. They have also begun collating information from existing green hay exchange or brush harvesting projects that are happening across the island. This information will be used for knowledge exchange.	
20	Investigate the potential for an annual	<ul style="list-style-type: none"> • Scoping study on a potential Hedgerow Festival to celebrate the uniqueness and 	Coordinated by AIPP Farmland Officer	Upon discussion, this action was changed into a wider initiative within the National Biodiversity Data Centre. The <i>Festival of Farmland Biodiversity</i> began in 2021	

	<p>May Hedgerow Festival.</p>	<p>value of native hedgerows (Run in May when native hedgerows are in full flower)</p> <ul style="list-style-type: none"> • Should include biodiversity as well as cultural components and bring in the wider community to celebrate and appreciate farmers as protectors of this vital habitat • Should stress the importance of hedgerows as networks for nature and for carbon capture • Should link with the Teagasc Hedgerow Week in September which promotes good hedgerow management • If funding is sourced, this should be rolled out on a gradual scale 	<p>Needs a funding body/sponsor</p>	<p>and will take place across May each year https://biodiversityireland.ie/festival-of-farmland-biodiversity/</p> <p>The hedgerow component of the wider Festival will continue to be enhanced over the coming years, in collaboration with key partners.</p>
21	<p>Run a campaign to raise awareness and celebrate pollinator diversity on farmland.</p>	<ul style="list-style-type: none"> • Awareness-raising campaign rolled out. This to be largely social media based, but may also include newsletters, blogs, videos, etc. • This to be run in collaboration with an existing National Biodiversity Data Centre project: Protecting Farmland Pollinators EIP 2019-2023 (funded by DAFM through the European Innovation Partnership) 	<p>National Biodiversity Data Centre</p>	<p>Farmland pollinators and pollinator-friendly actions continue to be promoted on social media.</p> <p>The following farmland specific blogs have been published by the AIPP farmland officer in 2021 https://pollinators.ie/blog/:</p> <ul style="list-style-type: none"> ✓ The value of a native wildflower meadow ✓ Collecting and growing wildflower seeds ✓ Collecting and growing native trees ✓ Planting native trees for pollinators ✓ Magical moths

				<p>The AIPP farmland officer continues to provide DAFM with regular farmland pollinator pieces for their social media channels.</p> <p>Regional radio: AIPP farmland actions for pollinators, Mid-West Radio - Farming Matters.</p> <p>National media in 2021: 'Farming is vital for pollinators', Irish Examiner piece 'Farming is vital for pollinators', Mooney goes wild, RTE radio</p>
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Target 1.5 Track changes in pollinators on farmland

	Action	Progress measure	Responsibility	Progress by November 2021
22	Publish an annual review of farmland actions.	<ul style="list-style-type: none"> Development of an annual review outlining progress within actions under this objective Publication on AIPP website each December 	Coordinated by AIPP Farmland Officer	This document provides a review of the farmland actions in 2021.
23	Track progress within the farmland sector.	<ul style="list-style-type: none"> Open up the online mapping system <i>Actions for Pollinators</i> to the farmland sector https://pollinators.biodiversityireland.ie/ Number of farms logging their pollinator-friendly actions 	AIPP Farmland Officer	This has not yet taken place. Considerations are still being given on how best to open up the mapping system to farmers and how best to integrate with the 'Protecting Farmland Pollinators' EIP project being run by the National Biodiversity Data Centre (2019-2023)

24	Monitor pollinators across a network of farmland sites.	<ul style="list-style-type: none"> Investigate the framework necessary for a national pollinator monitoring scheme to include sites across farmland, public and protected land. This should be in line with the European Pollinator Monitoring Scheme recommendations (2020) Source funding and roll out this scheme to monitor pollinators across a network of farmland sites 	National Pollinator Monitoring Scheme requires funding	In 2021, DAFM and NPWS granted initial funding for this scheme which is being managed by the National Biodiversity Data Centre. The project began in September 2021 and will be rolled out as a National Pollinator Monitoring Scheme pilot in 2022. 50 sites will be monitored across farmland, semi-natural sites, and urban parks.	
25	Publish annual farmland pollinator index.	<ul style="list-style-type: none"> Based on the annual data from a National Pollinator Monitoring Scheme, publish annual trends as a farmland pollinator index 	National Pollinator Monitoring Scheme	This index cannot be developed until data begins annually feeding through from the National Pollinator Monitoring Scheme (Action 24 above).	
26	Develop a Citizen Science recording scheme for farmland.	<ul style="list-style-type: none"> Investigate the possibility of creating a simple, tailored Citizen Science scheme for farmers to enable them to track changes in common pollinators on their land Pending funding, roll out this scheme nationally 	AIPP Farmland Officer & National Biodiversity Data Centre, Centre for Environmental Data and Recording NI (CEDaR)	Discussions are ongoing on the most appropriate scheme to develop for farmers. It is hoped it will be rolled out in future years.	

OBJECTIVE 2: MAKING PUBLIC LAND POLLINATOR FRIENDLY

Target 2.1 Increase the area of Council land that is managed in a pollinator-friendly way

	Action	Progress measure	Responsibility	Progress by November 2021	
27	Increase the number of Councils who formally agree to partner with the Plan and take actions.	<ul style="list-style-type: none"> ✓ There are 31 Local Authorities in RoI and 11 in NI. Target of 90% of all Councils formally signed up as partners of the Plan by 2025. 	AIPP Communities Officer	<p>As of the end of November 2021, 36 Councils (86%) have formally partnered with the Plan.</p> <p>The number of Council supporters has increased by 10 in 2021.</p>	
28	Support relevant sections of Councils to engage with and implement the AIPP. Ensure the AIPP is integrated within relevant Local Authority policy instruments.	<ul style="list-style-type: none"> ✓ Plan promoted to relevant sections within Councils, e.g. Environment, Local Enterprise Offices, Parks Dept, Engineers, Strategic Policy Committees (SPC), Public Participation Networks (PPNs), etc. ✓ Integration of the Plan within relevant policy instruments, e.g. County Heritage Plans, County Biodiversity Plans, County Development Plans, Local Economic and Community Plans, Climate Adaptation Plans, etc. 	Coordinated by Heritage and Biodiversity Officer network; Environment Departments	Heritage and Biodiversity Officer network continue to support Councils in engaging with the AIPP and in integrating pollinator actions within the relevant policy frameworks.	
29	Provide comprehensive and freely available online resources for the Council sector at www.pollinators.ie/councils	<ul style="list-style-type: none"> ✓ Up-to-date resources provided on the website. To include: evidence-based guideline documents, flyers, videos, blogs, webinars, presentations, case studies, animations 	AIPP Communities Officer	<p>This website is continually updated as new resources are developed: https://pollinators.ie/councils/</p> <p>Additional new resources are currently in development.</p>	

		<ul style="list-style-type: none"> ✓ All 2015–2020 resources to be updated where necessary in consultation with Councils ✓ Council toolkit to be continually expanded to meet needs under the advice of the Heritage and Biodiversity Officer networks. May include, but not limited to: technical guidelines on meadow management, grass disposal, advice on pesticide alternatives, advice on new emerging technologies. ✓ Promote new and innovative ways for Councils to engage with the AIPP, e.g. Promotion of the successful <i>Midleton Pollinator Plan 2020</i> (Cork CoCo) 		Each Council partner is asked to provide a short update of activities to feed into the Council partners annual review document. It is published in parallel to this main AIPP Annual Review. The Council partners annual review is used to highlight the positive actions taking place across Local Authorities, but also to assist with knowledge exchange. Council Partners: Annual Review 2021	
30	Provide an ongoing knowledge exchange programme for Council staff.	<ul style="list-style-type: none"> ✓ Organise annual knowledge exchange event for Council partners ✓ Continue to develop blogs, case studies and newsletters ✓ Training provided to Council staff 	AIPP Communities Officer	A knowledge exchange webinar was held for Councils on the 23 rd June 2021. It was hosted by Carlow County Council and attended by 250 Council staff from across the island https://pollinators.ie/councils/councils-webinar-2021/	
31	Increase the number of Regional Assemblies who agree to partner with the Plan and support implementation	<ul style="list-style-type: none"> • There are three Regional Assemblies in RoI. Each to be approached on supporting the objectives of the AIPP 2021-2025. 	The Eastern and Midland Regional Assembly, others to agree	The Regional Spatial and Economic Strategies (RSES) for the three Regional Assemblies promote the aims of the AIPP. The RSES for the North Western Region includes an overarching Environmental Regional Policy Objective for the AIPP as follows:	

	<p>within local government, where appropriate.</p>	<ul style="list-style-type: none"> • Each has a 12 year Spatial and Economic Strategy (RSES) (made in 2019/2020) containing Regional Planning Objectives (RPOs). These to support implementation of the AIPP 2021-2025 (and vice versa), where appropriate. • Each participates in EU projects which involve sectoral, local, regional and international engagement activities. Where thematically relevant, these to promote the All-Ireland Pollinator Plan (e.g. the Interreg Europe PROGRESS project on which the Eastern and Midland Regional Assembly is a partner) 		<p>No 2: The Assembly supports the implementation of the All-Ireland Pollinator Plan 2015-2020.</p> <p>For the Southern Region the strategy includes the following Regional Policy Objective: RPO 128: It is an objective to support the implementation of the All-Ireland Pollinator Plan 2015-20. Local authorities should incorporate the actions of this Plan when managing their parks, open spaces, roadside verges and all vegetation in a way that provides more opportunities for biodiversity, while being cognisant of the threat of the spread of invasive species.</p> <p>More engagement with the Regional Assemblies is planned for 2022. To date, the most direct engagement has been with EMRA, who have provided an update on their support below.</p> <p>EMRA: As of July 1st 2021, all 12 Local Authorities in the Eastern and Midland Region are official partners of the AIPP. In 2021 EMRA has continued to engage with the AIPP team and actively promote the AIPP across regional and international networks, primarily through the Interreg Europe PROGRESS project. This includes the formal inclusion of the AIPP as a Good Practice (GP) in the Interreg Europe GP database; development of a video to promote the AIPP as a GP across Europe https://youtu.be/cMesAH23dDQ (€2,400 from project funds); Inclusion of the EIP-Agri Protecting Farmland Pollinators (PFP) project as a GP -</p>	
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				<p>presented at 1 Seminar, 1 Workshop and included in the 3rd Thematic Handbook; AIPP and PFP feature article included on the Interreg Europe Policy Learning Platform homepage: https://www.interregeurope.eu/policylearning/news/12970/protect-the-bees-the-irish-way/?no_cache=1&cHash=5a3e7ef567bc5d125a906e36731eeb96; EMRA assisted development of Pilot Action proposal for the Barcelona region by PROGRESS partner based on the AIPP; Dedicated AIPP virtual exhibition space created and hosted by EMRA at the Environmental Conference of the Regions of Europe (ENCORE 2021), and; Úna Fitzpatrick to address EPA SEA Forum event hosted by the Three Regional Assemblies titled “Bringing Nature into Local Authority Development Plans” (25th November 2021).</p>
32	<p>Develop an All-Ireland ‘Pollinator Trail’ across public land, composed of a network of sites demonstrating high quality pollinator/biodiversity-friendly management.</p>	<ul style="list-style-type: none"> • AIPP to develop criteria for the initiative • Local Authorities to identify suitable publicly owned sites to form part of a trail. • Begin process of developing an All-Ireland network of high-quality sites across different pollinator-friendly actions (meadows, hedgerows, orchards, perennial planting, etc.) that are branded and promoted as a Pollinator Trail and used for knowledge transfer 	<p>Coordinated by Heritage and Biodiversity Officer network and AIPP Communities Officer</p> <p>Requires resources for branding</p>	<p>Plans for the development of a ‘Wild Bee Way’ are still in the early stages of planning. This will be progressed further in 2022.</p>

		<ul style="list-style-type: none"> • Begin with Council sites, but develop a roadmap to expand this to other sectors, e.g. local community examples • Discuss with relevant bodies how this network can be fully promoted to maximise the positive potential for human health and wellbeing and as a tourism initiative • Increase in the number of sites within the Trail 			
33	Encourage the development of 'Pollinator-friendly Parks' on public land, i.e. parks that demonstrate a wide range of pollinator-friendly actions.	<ul style="list-style-type: none"> • AIPP to provide 'Pollinator-friendly Parks' criteria, including a template of features and minimum standards, e.g. small natural meadow, pollinator-friendly planting, nesting habitats, no pesticide use, mini orchard • Local Authorities to identify suitable areas to be managed/developed as 'Pollinator-friendly Parks' • Webpage and branding developed by AIPP to promote the location of these parks • AIPP to provide standardised signage templates for various park features and on pollinating insects 	Coordinated by Heritage and Biodiversity Officer network, other relevant sections of Councils & AIPP Communities Officer	This has not yet been progressed.	

		<ul style="list-style-type: none"> • AIPP to develop associated materials and make freely available online: lesson plans and activities for school nature talks; health and wellbeing resources etc. • Where new areas are being developed, Councils to be encouraged to consider locating them within easy reach of schools in socio-economically disadvantaged areas. 			
34	Promote pollinator awards for Council-owned/managed land.	<ul style="list-style-type: none"> • Continue to promote and support the pollinator award in the An Taisce Green Flag for Parks initiative in ROI • Investigate the possibility of an equivalent award in the Green Flags for Parks initiative in NI • Investigate existing award structures and the potential to have an annual award to recognize the most pollinator-friendly Council. (ROI and NI) 	An Taisce, AIPP Communities Officer, other partners as relevant	<p>The An Taisce Green Flag for Parks initiative in ROI again included a special pollinator award in 2021. Thanks to Young Nurseries who sponsor the award. Thirteen Parks entered in 2021, with the standard being extremely high across the board. The three category winners were:</p> <p>Country Park: Ballycroy Visitor Centre at Wild Nephin National Park (NPWS) Town Park: Kilbarry Nature Park (Waterford City and County Council) Community Garden: Julianstown Community Garden</p> <p>The overall winner in the 2021 competition was Kilbarry Nature Park https://pollinators.ie/2021-green-flag-pollinator-awards-for-parks-announced/</p> <p>Discussions have been taking place around the possibility of an equivalent award in the Green Flags</p>	

				for Parks initiative in NI. The potential for additional future awards will be investigated over the coming years.	
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Target 2.2 Make transport corridors more pollinator friendly

	Action	Progress measure	Responsibility	Progress by November 2021	
35	Provide comprehensive and freely available online resources for Transport Authorities	<ul style="list-style-type: none"> Up-to-date resources provided on AIPP website To include: evidence-based guideline documents, flyers, videos, blogs, webinars, presentations, case studies, animations ✓ All 2015-2020 resources to be updated where necessary ✓ Toolkit to be expanded to meet needs, under the advice of Transport Authority partners. 	AIPP Communities Officer	<p>This webpage is kept up to date https://pollinators.ie/transportcorridors/</p> <p>New resources have not been added in 2021</p>	
36	TII to promote pollinator-friendly management of the national road network in Rol.	<ul style="list-style-type: none"> Improvement of grassland management and pollinator-friendly planting across all existing motorway service areas Grass-cutting frequency to move from condition-based maintenance to a specified programme, i.e. reduced number of cuts per year 	Transport Infrastructure Ireland (TII)	<ul style="list-style-type: none"> ✓ From April 2020 the grass cutting regime on all areas of the motorway networks under TII's direct responsibility has been altered to delay the first cut to mid-April and reduce mowing to a 6-week regime. This was trialed and was a success so has now been adopted as a new grass cutting regime by all motorway contractors. ✓ The AIPP guide for Transport Corridors is a required reference for all TII landscape 	

		<ul style="list-style-type: none"> • All new roadside planting to have a significant proportion of pollinator-friendly plants • Areas of pollinator-friendly management mapped on GIS • Reduction in the use of pesticides on the network • Control and manage the spread of invasive plant species. 		<p>schemes. For example, it is a key concept in the planting strategy developed for the Metrolink projects.</p> <ul style="list-style-type: none"> ✓ Mapping of Pollinator areas is linked to a general landscape mapping strategy which is still being progressed by TII and its motorway contractors. Ongoing ✓ As part of the AIPP trial on the Motorway network weed control was changed from a condition-based programme to a programme to target weed growing patterns. This has resulted in a 26% reduction in herbicide use compared to 2019. This revised programme is now agreed. ✓ TII are continuing with its programme of invasive plant control. ✓ Applegreen has come on board to manage their motorway services areas in line with the AIPP. Last year was the first year of them rolling this approach across their service areas.
37	Department for Infrastructure NI to promote pollinator-friendly management of the national road network in NI.	<ul style="list-style-type: none"> • Review DfI Roads' environmental policies to promote pollinator-friendly practices and to encourage their inclusion on road schemes, where practicable • Review the outputs from the 'Don't mow, let it grow' pilot 	Department for Infrastructure NI	<ul style="list-style-type: none"> ✓ DfI has reviewed the recommendations of recent research into this area and engaged with local stakeholders to better understand practicable methods of enhancing the biodiversity value of road verges. DfI continues to encourage the inclusion of pollinator-friendly practices on our projects

		<p>project to determine if grass-cutting policy could be changed to help improve the available biodiversity resource</p> <ul style="list-style-type: none"> • Design of roadside planting on Strategic Road Projects to incorporate pollinator-friendly plants • Areas of pollinator-friendly management to be identified and recorded • Consider alternatives to the use of pesticides on the network • Continue to control and manage the spread of invasive plant species 		<p>and remains committed to the ongoing review of relevant policies.</p> <ul style="list-style-type: none"> ✓ The 'Don't mow, let it grow' project is continuing after its initial 3-year pilot period and involves the management of 20 road verges and 18 Council park grassland areas, allowing native wildflowers, grasses and insects to flourish. DfI is working with local Councils to identify possible additional sites which could be managed using this approach. ✓ DfI's specification for new major roads projects ensures that the landscape design of the scheme incorporates pollinator-friendly plants. A current example is the planting regime for the ongoing A6 Dungiven to Drumahoe Dualling scheme which includes the provision of wildflower seeding for approximately 200,000m² over a number of locations along the 25.5km project. ✓ Pollinator-friendly management areas, and the associated specific maintenance requirements, are identified within Divisional records. ✓ DfI remains committed to considering alternatives to the use of pesticides on the road network, for the effective control of weeds. ✓ DfI implements a robust policy to ensure the identification, recording and effective 	
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				management of invasive plant species on our lands, to prevent further spread.	
38	Iarnród Éireann to promote pollinator-friendly management of the national rail network in RoI.	<ul style="list-style-type: none"> • Improvement of grassland management and pollinator-friendly planting across all stations • Grass-cutting frequency to move from condition-based maintenance to a specified programme, i.e. reduced number of cuts per year • All new landscaping planting specifications to incorporate AIPP pollinator-friendly planting code • Areas of pollinator-friendly management mapped on GIS • Reduction in the use of pesticides on the network. Commit to trialing alternatives to glyphosate in station carparks and platforms • Control and manage the spread of invasive plant species • Creation of pollinator-friendly habitat on non-operational lands 	Iarnród Éireann	An update was not provided. Within the timeframe of this review, we were unable to identify a new point of contact as the previous person no longer works for the company.	

39	Translink to promote pollinator-friendly management of the national public transport network in NI.	<ul style="list-style-type: none"> • Promote the message of the All-Ireland Pollinator Plan 2021-2025, and associated guidelines across Translink, stakeholders and contractors • Ensure increasing pollinators is a key facet within the proposed new Translink Biodiversity Strategy – including the improvement of grassland management and pollinator-friendly planting across the Translink estate • Develop a suite of Translink Biodiversity Information sheets focused on pollinators • All new landscaping planting specifications to incorporate AIPP pollinator-friendly planting code • Areas of pollinator-friendly management mapped on GIS • Continue to work in partnership with employees, contractors, local communities, and environmental NGOs to promote pollinator-friendly planting. 	Translink	<p>Biodiversity is a key element of our new Climate Positive Strategy.</p> <p>Planted over 500 pollinator friendly plants at our City Hospital halt as part of our Annual Translink State of the Nation. We launched the Climate Positive Strategy to our Management, Professional and Technical grade. As part of this we planted one for every delegate and asked them to pledge to do something for the environment.</p>	
40	Waterways Ireland to promote pollinator-	<ul style="list-style-type: none"> • Promote the message of the All-Ireland Pollinator Plan 	Waterways Ireland	<p>✓ Waterways Ireland has promoted the All-Ireland Pollinator Plan on its social media as</p>	

	<p>friendly management of the national waterway towpath network.</p>	<p>2021-2025 within Waterways Ireland and with stakeholders.</p> <ul style="list-style-type: none"> • Continued rollout of biodiversity-rich grassland management as standalone and through community partnerships. • Grass-cutting frequency to favour pollinators, i.e. reduced number of cuts per year. • Areas of pollinator-friendly management mapped on the AIPP GIS. • Control and manage the spread of invasive plant species. • Continue to ensure biodiversity and pollinator actions are core elements of the new Waterways Ireland Heritage Plan 2030. • Support grant applications that support biodiversity. 		<p>well as dedicating a standalone feature on pollinators and the AIPP in its flagship Virtual Reality Canal experience. Pollinator Plan Guidelines were also made available as part of the Waterways Ireland Virtual Open Day. In collaboration with the Grand Canal Biodiversity & Clean-up Group we ran a train-the-trainer initiative about biodiversity on the urban canals, of which pollinators formed part of the curriculum.</p> <ul style="list-style-type: none"> ✓ In addition, we have entered into a Service Level Agreement with Kildare County Council and other local authorities to jointly fund research into herbicide free methods of weed control, which will help support pollinators. This has been supported by in-house trials of Foamstream as well as the purchase of a Weedhex machine which mechanically removes moss and weed, thereby removing the need for herbicide. We also ran events with other agencies like Kildare County Council, to share our learnings. It is planned to roll these units out to all operational areas in 2022, subject to funding. ✓ We continue to manage several sites for biodiversity and pollinators at Daingean, Pollagh, Ticknevin, Leixlip, Footy Bridge and Dolphins Barn. In the last year we also extended this to our offices in Scarriff and our headquarters in Enniskillen. 	
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				<ul style="list-style-type: none"> ✓ This is applied throughout the majority of our towpaths and trackways outside the immediate path edge which ensures integrity of path surface with biodiversity management outside this zone. ✓ All actions are mapped under the username: waterwaysireland ✓ Monitoring and management of invasive species (both terrestrial and aquatic) is a core aspect of our work in Waterways Ireland, to ensure the continued ecological health of our waterways. This year alone we ran three separate approaches to Winter Heliotrope control with a local community group and Leave no Trace Ireland whilst also showing how this helped achieve the UN SDGs. We also sit on the National Invasive Species Action Group being coordinated by the National Biodiversity Data Centre. ✓ The new Waterways Ireland Heritage Plan 2030 is still under development, but we are committed to including biodiversity and pollinator actions. ✓ In 2021 the Heritage Plan Grant Scheme continued to support a wide range of heritage initiatives, including projects focused solely on the protection and/or promotion of biodiversity. 	
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41	Promote pollinator-friendly management of future transport routes, e.g. future greenway cycle routes.	<ul style="list-style-type: none"> • Guideline document (<i>Pollinator-friendly management of Transport Corridors 2019</i>) to be applied to new projects as relevant, e.g., MetroLink and all future light rail projects • Continue to reach out to new partners and to promote the adoption of the guideline document for new transport routes. • Develop additional resources around pollinator-friendly management of greenways and new cycle routes 	AIPP Communities Officer and relevant partners	This has not yet been progressed.	
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Target 2.3 Make schools and educational properties more pollinator friendly

	Action	Progress measure	Responsibility	Progress by November 2021	
42	Provide comprehensive and freely available online resources for Schools	<ul style="list-style-type: none"> • Up-to-date resources provided on the website. To include: evidence-based guideline documents, flyers, videos, blogs, webinars, presentations, case studies, animations, etc. ✓ All 2015–2020 resources to be updated where necessary. 	AIPP Communities Officer	This website is continually updated as new resources are developed https://pollinators.ie/schools/	

43	Green-Schools to encourage pollinator-friendly management of schools in RoI.	<ul style="list-style-type: none"> • Pollinators to continue to be promoted within the Green-Schools Initiative • Increase in the numbers of students, teachers, principals and caretakers exposed to pollinator information • Investigate the possibility of schools being awarded a pollinator award upon production and implementation of a School Pollinator Plan. 	Green-Schools	<p>The Green-Schools 'biodiversity team' have continued to make support materials and new resources for schools, with specific references to pollinators. These have all contained information on the AIPP and links to www.pollinators.ie</p> <p>In the summer of 2021, the Green-Schools Teachers' Summer Course dedicated one of the days to Biodiversity, with a considerable amount of time on that day given to pollinators – this was attended by 18 teachers.</p> <p>Green-Schools' annual Autumn Seminars for the themes of 'Biodiversity' and 'Food and Biodiversity' included information on pollination, pollinators and to resources for creating a school 'Pollinator Action Plan'. Over 190 participants attended these seminars.</p>
44	Eco-Schools to encourage pollinator-friendly management of schools in NI.	<ul style="list-style-type: none"> • Pollinators to continue to be promoted within the Eco-Schools Initiative • Increase in the numbers of students, teachers, principals and caretakers exposed to pollinator information • Investigate the possibility of schools being awarded a pollinator award upon production and implementation of a School Pollinator Plan. 	Eco-Schools	<ul style="list-style-type: none"> ✓ Mini orchard/Outdoor learning fruit garden/Biodiversity gardens installed in 29 primary schools across Northern Ireland with apple, pear, plum, blackberry, blackcurrant, raspberry, strawberry, blueberry bushes and trees. ✓ Danske Bank Productive Biodiversity Garden for Outdoor Learning – 11 schools ✓ Radius Housing Biodiversity Project – 16 schools ✓ Loughhill Wind Farm (Res Group) – 2 schools

				<ul style="list-style-type: none"> ✓ Supported by workshops on Biodiversity, site selection, organic gardening practices, composting, healthy eating, harvesting, pruning, taking cuttings, etc ✓ Online webinars offered with a biodiversity theme and the importance of conservation: Workshop on Biodiversity was offered to all schools across NI. (attendance 97 schools) ✓ Guest Biodiversity speaker Sarah Roberts (attendance 57 schools) ✓ Workshops also include suggestions for signage with “No Mow” and “No spray” messaging. ✓ Engagement with school caretakers has been a key feature of these projects – a guide has been developed. ✓ Rural Community Pollinator Grant scheme was also open to schools. ✓ Biodiversity teaching resources developed across all 7 key stages and uploaded to Eco-School’s Website ✓ Schools Pollinator Award scale and ambition – discussions ongoing. 	
45	Run a ‘Pitches for pollinators’ summer campaign to leave school pitches unmown during the summer holidays to	<ul style="list-style-type: none"> • Campaign to leave unused school pitches unmown from the end of June until mid-August to allow clovers to flower and provide food for pollinators. 	AIPP Communities Officer	Some preparatory work has taken place. It is planned that this will be promoted from 2022.	

	provide food for pollinators.	<ul style="list-style-type: none"> • Where used, encourage pitch edges to be left unmown for pollinators • Promote this campaign to schools, to include full details on what is being proposed • Increase in the number of schools taking part. 			
46	Green-Campus to encourage pollinator-friendly management of third level campuses across the island.	<ul style="list-style-type: none"> • Increase number of third level campuses who have signed up as supporters of the AIPP and agreed to take actions • Explore the possibility of a 'most pollinator-friendly campus' annual award. 	Green-Campus	The Green-Campus programme has highlighted the new All-Ireland Pollinator via its website and blog. We have continued to encourage campuses to sign up to the plan during our assessment visits and feedback. We have held initial talks about a pollinator award for third-level campuses.	

Target 2.4 Organisations with site networks on public land to manage these in a pollinator-friendly way

	Action	Progress measure	Responsibility	Progress by November 2021	
47	Maintain a network of partner organisations who agree to manage their public site networks in a pollinator-friendly way.	<ul style="list-style-type: none"> ✓ Each organisation to provide a short annual update on activities as part of annual reporting in December ✓ Facilitate knowledge exchange between groups as appropriate. ✓ Expand the network to bring in new partners where possible 	AIPP Communities Officer	A network has been established. Following publication of this initial annual update, efforts will be made to better facilitate knowledge exchange in future years.	

48	BirdWatch Ireland to adopt pollinator-friendly management within their reserves, where appropriate.	<ul style="list-style-type: none"> • Undertake monitoring through the Bumblebee Monitoring Scheme at key reserves • Maintain habitats for nesting bees • Incorporate pollinators into reserve management plans (where appropriate and when reviewed) ✓ Support pollinator policy and advocacy work where appropriate through developing and strengthening integrated biodiversity policies and actions. 	BirdWatch Ireland	Monitoring, through the Bumblebee Monitoring Scheme, has been carried out on some of our reserves in 2021. At our Annagh & Termoncarragh Meadows reserves, Co Mayo, 8 different true bumblebee species were recorded, including Great Yellow, Red Shanked Carder and Large Carder along with their active nests. During the August transect, a maximum of 227 individual bees were recorded, that included 46 individual Great Yellow Bumblebees. Habitats for pollinators are maintained on our lands through a variety of management including applying autumn mowing regimes, reducing soil fertility to increase flowering plant diversity, maintaining open structure grass swards, maintaining earthen wall boundaries and retaining areas of ‘tussock’ grass overwinter.
49	Bord na Móna to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> • Identification of potential pollinator-friendly habitats on cutaway bogs • Maintain pollinator actions within BnM Biodiversity Action Plans. • Number of participating sites 	Bord na Móna (BnM)	<ul style="list-style-type: none"> ✓ Pollinator friendly habitats (e.g. pioneer species-rich grassland) being mapped as part of ongoing baseline surveys. ✓ New Marsh Fritillary sites recorded at Boora, Finnermore and Pollagh Bog. ✓ Surveys continue to identify sites with high biodiversity value. E.g. The BnM railway at Longfordpass is a pollinator friendly site and has high floral species diversity including <i>Ophrys apifera</i> subsp. <i>clororata</i>. Alder Buckthorn has a scattered presence along the Crabtree River in Kildare. This river flows through several BnM cutaways. Alder

				<p>Buckcorn has now spread naturally to cutaway bog in Lullymore.</p> <ul style="list-style-type: none"> ✓ Several sites with re-surveyed habitats in 2021 as part of PCAS baseline (e.g. Derrybrat) ✓ Pollinators (butterflies) being monitored on several sites (transects) as part of the wider PCAS monitoring programme. ✓ Bog restoration and rehabilitation measures being implemented across 18 BnM PCAS sites in 2021 to encourage re-wetting and development of wet peatland habitats. > 4000 ha completed at present. Re-vegetating these areas will be positive for some pollinating insects by providing new habitat over the longer term. ✓ Bog restoration at Kellysgrove Bog now complete (PCAS site). Raised bog restoration measures, will continue to support pollinators. ✓ Pollinator actions continuing to be included in proposed BnM renewable energy developments e.g., The proposed Derrinlough Windfarm has MF habitat compensatory measures. ✓ Awareness of All-Ireland Pollinator Plan promoted at various BnM Ecology events in 2021. ✓ Pollinator-friendly management (e.g. natural grassy meadows) is being encouraged at BnM 	
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				<p>offices, with part of the lawn at Derrygreenagh managed as a wildflower meadow. This management is continuing.</p> <p>✓ The BnM Herb project trials are not being continued.</p>
50	Coillte to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> • Number of participating sites 	Coillte	New native woodland afforestation scheme called Nature Trust launched in 2021. Pollinator-friendly management across all Nature Trust sites. First planting took place in May 2021 and 200 hectares due to be planted over next 12 months.
51	Environmental Protection Agency to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> • Number of participating sites 	Environmental Protection Agency (EPA)	Ongoing activities at EPA HQ to manage site in pollinator-friendly manner (e.g., reduced mowing of >50% green spaces, wildflower meadow, planting of native hedgerow). Internal document (“Biodiversity at EPA Wexford – Learnings from HQ”) published in August 2021 to document learnings from HQ and shared with other EPA sites.
52	Electricity Supply Board to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> • Number of participating sites • Delivery of pollinator awareness workshops to ESB staff 	Electricity Supply Board (ESB)	Through 2021, ESB has initiated a review of biodiversity at all relevant landholdings such as substations, generating stations, wind farms, offices and depots. This has included provisionally identifying sites with potential for rollout of targeted Pollinator Plan measures, with the shortlist to be finalised in 2022. The ESB Networks Training Centre has been selected as a pilot location. This is a 14-hectare site in Portlaoise predominantly comprising improved amenity grassland and is considered suitable for a suite of pollinator actions.

				<p>Advocacy of the Pollinator Plan has been ongoing through 2021, with a number of presentations being delivered by the ESB Ecology Team, including a lunchtime seminar which outlined the objectives of the plan and highlighted what actions staff can undertake both at work and at home to help support pollinators. ESB has publicly communicated its engagement with the plan in number of blog and social media posts throughout the year, including https://esb.ie/blog/low-carbon-future/low-carbon-future/2021/07/29/esb-commits-to-all-ireland-pollinator-plan and https://esb.ie/blog/people-of-esb/people-of-esb/2021/08/31/people-of-esb-meet-geoff-hamilton-senior-ecologist-with-esb</p>
53	Gas Networks Ireland to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> • Maintain habitat for nesting bees • Incorporate pollinators into biodiversity strategy and guidance documents • Supporting community engagement initiatives promoting biodiversity awareness • Delivery of biodiversity & pollinator awareness training for staff & kids • Adoption of pollinator-friendly management practices in biodiversity guideline procedures 	Gas Networks Ireland	<ul style="list-style-type: none"> ✓ Reduced mowing 'pollinator zones' maintained at our Dublin and Cork offices, including the grass roof in Finglas and a selection of gas sites (AGIs). At our Marino Point AGI in Cork, where our redundant assets were decommissioned and removed from the site, habitat boxes were installed and sections of suitable ground were readied for wildflower planting, for Spring 2021. ✓ Identified GNI guidance requirements to implement AIPP at assets nationwide, and set as 2021 KPIs. ✓ Made biodiversity a key criterion and deliverable for national long-term contracts via our procurement process.

				<ul style="list-style-type: none"> ✓ Included AIPP & Biodiversity in <i>2020 Sustainability report</i>, as key part of Sustainability Strategy. ✓ Developed an existing resource role within the Sustainability Environment Team to focus more on Biodiversity including supporting the AIPP and established a dedicated Sustainability Steering Committee which consists of members from the Executive Management Team. ✓ Continued monitoring independent research on the benefits of multispecies agricultural swards, which include Red Clover and are better for pollinators than monoculture swards, as a feedstock for AD. Production of biomethane from anaerobic digestion (AD) of grass, forms part of Gas Network Ireland’s decarbonisation strategy. ✓ Signed up to the Business for Nature Call to Action, a global coalition of businesses committed to reversing nature loss through action and advocacy. ✓ Continued our anchor sponsorship of the Irish Examiner biodiversity month special in May by promoting a “Gardening for Biodiversity” booklet by Juanita Browne of the All-Ireland Pollinator Plan. ✓ Ran a children’s art competition to mark World Biodiversity Day and raised awareness about the importance of protecting pollinators and Irish biodiversity. 	
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				<ul style="list-style-type: none"> ✓ Produced awareness raising Youtube video of biodiversity enhancement measures adopted at two of our locations. ✓ Provided two webinars to staff on biodiversity with Juanita Browne of the All-Ireland Pollinator Plan.
54	Irish Water to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> • Number of participating sites 	Irish Water	Irish Water has carried out 203 pollinator friendly actions over 237 different sites around the country to date. Biodiversity friendly measures will continue to be pushed across all sites in 2022.
55	National Trust to adopt pollinator-friendly management across network of sites and properties, where appropriate.	<ul style="list-style-type: none"> • Undertake monitoring through the Bumblebee Monitoring Scheme at key NT properties • Maintain habitats for nesting bees • Incorporate pollinators into property/land use management plans (where appropriate and when reviewed) • Promote Flower-Insect Timed Counts (Citizen Science monitoring scheme) 	National Trust	<ul style="list-style-type: none"> ✓ Started a Bumblebee Monitoring transect at White Park Bay and Giant's Causeway (Innisfree farm). Continued transects at Castle Ward and Crom. ✓ Thanks to DAERA Environment Fund and Buglife, we surveyed Northern colletes (solitary mining bee) at Portstewart Strand & White Park Bay. Good populations at both sites. Recommendations for maintaining habitat will feed into Management Plans. ✓ Our countryside teams continue to work together and with our tenant farmers to manage grasslands for pollinators. Key actions in 2021: ✓ Purchase of meadow restoration / creation equipment through DAERA's Environment Fund. Trialled the meadow kit to establish new meadows at sites in Belfast (Lisnabreeny)

				<p>and the North Coast (Downhill and Cushendun).</p> <ul style="list-style-type: none"> ✓ Established a further 13 acres of herbal leys on the North Coast. ✓ Area of lawn at Derrymore is now managed as species rich grassland with late cut and lift. At Springhill, wildflower seed was collected from species rich meadow by hand and sowed in other areas on the estate. ✓ Continued our transition of former lawns to wildflower areas at Crom (continued with the yellow rattle seeding in such areas which has proved very effective) and Castle Ward (late cut and lift). ✓ Aim to promote FIT counts in 2022.
56	Northern Ireland Water to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> • Number of participating sites 	Northern Ireland Water	<ul style="list-style-type: none"> ✓ NI Water have mapped 2 sites totaling nearly 120,000m². One site is a managed wildflower meadow and the other is a large area of wildflowers, grasses, flowering shrubs and flowering hedgerow surrounding our NI Water Headquarters. We have a number of active wildflower planting projects which will be sown in Spring 2022 and a further list of 40 areas for consideration to setting aside in 2022.

57	Encouragement and, where appropriate, adoption of pollinator-friendly management on NPWS property, including Statutory Nature Reserves and National Parks.	<ul style="list-style-type: none"> ✓ Number of participating sites 	National Parks and Wildlife Service (NPWS)	<ul style="list-style-type: none"> ✓ A number of NPWS sites are actively managed for pollinators (e.g., winter grazing at Ballyteigue Burrow Nature Reserve in County Wexford). ✓ The Ivy Bee (<i>Colletes hederæ</i>) was recorded for the first time in Ireland (2021) at the Raven Nature Reserve, County Wexford. ✓ The Wild Nephin National Park visitors centre was the 2021 winner in the country park category for the 'Green Flag for Pollinator Award for Parks'. ✓ Sites will be encouraged to formally sign up as supporters of the AIPP in 2022. 	
58	Office of Public Works to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> ✓ Incorporate Pollinators into Conservation Management Plans at key sites as appropriate ✓ Support the roll out of short- and long-flowering meadows at appropriate locations throughout the country ✓ Maintain and expand on the provision of nesting habitats for solitary bees ✓ Engage with staff and the public in participating in Citizen Science Projects 	Office of Public Works (OPW)	<ul style="list-style-type: none"> ✓ The measure is ongoing with biodiversity and pollinator actions being incorporated as plans are being developed and updated across key sites. In addition, 10 site specific biodiversity appraisals have been commissioned for sites countrywide. These will lead to pollinator-friendly management plans. ✓ Significant progress has been achieved with the rollout of this measure. Also, an in-house conference and workshop was organised for all OPW staff promoting best practice in the management of our habitats and flowering meadows. ✓ Solitary bee habitats have been introduced at locations countrywide 	

				✓ Competent staff engage with the public on a regular basis in the promotion of CSP such as butterfly monitoring etc	
59	The Royal Society for the Protection of Birds (NI) to adopt pollinator-friendly management within their reserves, where appropriate.	<ul style="list-style-type: none"> • Undertake monitoring through the Bumblebee Monitoring Scheme at key reserves • Maintain habitats for nesting bees • Incorporate pollinators into reserve management plans (where appropriate and when reviewed) 	The Royal Society for the Protection of Birds (RSPB NI)	A 2021 update was not provided.	
60	The Courts Service of Ireland to adopt pollinator-friendly management across site network, where appropriate.	<ul style="list-style-type: none"> • Number of participating sites 	The Courts Service of Ireland	In 2021 the Courts Service introduced rewilding pilots in 4 courthouse venues (Carrick-on-Shannon, Nenagh, Cork, and Roscommon). We also started a review of rewilding opportunities throughout our extensive estate with a view to expand roll out in 2022.	

Target 2.5 Make local communities more pollinator friendly

	Action	Progress measure	Responsibility	Progress by November 2021	
61	Provide comprehensive and freely available online resources for Local Communities	<ul style="list-style-type: none"> • Up-to-date resources provided on AIPP website. To include: evidence-based guideline documents, flyers, videos, blogs, webinars, presentations, case studies, animations 	AIPP Communities Officer	This website is continually updated as new resources are developed www.pollinators.ie/localcommunities	

		<ul style="list-style-type: none"> All 2015–2020 resources to be updated where necessary 		
62	Promote pollinator-friendly actions within the Tidy Towns network.	<ul style="list-style-type: none"> Continue to promote pollinator-friendly actions within the national Tidy Towns competition as appropriate Facilitate a special pollinator award (below) 	Tidy Towns Unit	The Tidy Towns Unit have again facilitated the special pollinator award in 2021 (Action 63 below). They have also regularly promoted pollinator-friendly actions to the Tidy Towns network.
63	Support Tidy Towns groups to be pollinator friendly through the Local Authority Pollinator Award in the National Tidy Towns competition.	<ul style="list-style-type: none"> Continue to annually fund and administer the special pollinator award in the national Tidy Towns competition Continue to provide support and advice to Tidy Towns groups in helping pollinators Monitor the engagement with and standard of entries to the award Publication and dissemination of an annual newsletter celebrating the work of Tidy Towns groups to support pollinators 	Heritage and Biodiversity Officer network, with support from AIPP Communities Officer	<p>The Local Authority Pollinator Award was successfully run in the Tidy Towns competition in 2021. Every year, the standard of entries is growing and the committee behind the award continue to be inspired by what is being achieved. This year there were a total of 76 entries, with 55% being from new entrants.</p> <p>In addition to the overall winner, this award identifies large and small town winners within each of the four Tidy Towns regions. Since 2021, we have also introduced an award for the best newcomer.</p> <p>Congratulations to Buncrana in Co Donegal who won the overall award in 2021.</p> <p>All winners were as follows:</p> <p>National winner: Buncrana Tidy Towns Best newcomer: Woodstown Village Residents Association</p> <p>Large town winners: Midlands & East – Dundalk Tidy Towns</p>

				<p>South & Mid West – Ennis Tidy Towns South East – Clonmel Tidy Towns North West West – Buncrana Tidy Towns</p> <p>Small town winners: Midlands & East - Abbeyleix South & Mid West - Castlegregory South East - Leighlinbridge North West West - Belmullet</p>
64	Promote pollinator-friendly actions within the Keep Northern Ireland Beautiful network.	<ul style="list-style-type: none"> • Continue to promote pollinator-friendly actions within the Keep Northern Ireland Beautiful initiative, as appropriate • Investigate possible mechanisms for a pollinator award within the Live Here Love Here Volunteer Award 	Keep Northern Ireland Beautiful	<p>Workshop on rewilding your spaces delivered to the community groups involved in the Radius Housing Biodiversity Project (62 shared housing and community groups in attendance) All workshops available on Youtube Radius Housing Productive Biodiversity Gardens (etinu.net)</p> <p>Rural Community Pollinator Grants scheme launched late September 2021: 240 applications 185 projects funded to the value of £1,506,885</p> <p>Assets created for project advice on Biodiversity page and LHLH grant application pages https://www.livehereandlovehere.org/cgi-bin/generic?instanceID=72 https://www.keepnorthernirelandbeautiful.org/cgi-bin/generic?instanceID=70</p>

				<p>Live Here Love Here Adopt A Spot Kits have diversified to include a wildlife kit. Which will include advice on “The right type of wildflowers”.</p> <p>Workshop and presentation on increasing Biodiversity through habitat creation and management practices delivered by LEQ dept to Translink staff. They are establishing a Biodiversity working group.</p> <p>Pollinator Awards for both LHLH community volunteers and Green Flag spaces – discussion ongoing – funding needs investigated/sought. Draft award document for Green Flag has been developed.</p> <p>AIPP promoted at Balmoral Show 2021.</p>
65	Deliver community-based training on Ireland’s bees, bee monitoring and bee-friendly habitat creation through the IWT <i>People for Bees</i> initiative.	<ul style="list-style-type: none"> Continue to provide introductory training to support local communities and members of the public in helping pollinators Number of workshops delivered 	Irish Wildlife Trust (IWT)	<p>Our IWT People for Bees programme continued in 2021 with a focus on engaging community groups. Activity was limited due to reduced community group activity as well as pandemic restriction. Workshops were delivered in counties Clare, Cork, Donegal, Dublin & Mayo providing training on Irish bee biology and bee conservation actions. The workshops were run in conjunction with local county councils.</p> <p>Number of workshops delivered: 18 (1 in person workshop / 17 virtual) 25 community groups were represented at the 2021 workshops.</p>
66	Support additional communities in	<ul style="list-style-type: none"> Explore the possibility of using the ChangeX platform to 	ChangeX	ChangeX, the social innovation platform which draws together excellent social innovations, funding partners

	coming together to protect pollinators.	support wider implementation of the Plan at the community level		(Accenture, AWS and Greencoat Renewables), and community/volunteer groups, is now partnered with AIPP. Change X has provided three online 2-minute pitch platforms in 2021 for Agri Business Officer Sarah Kelly to highlight the Pollinator Plan as a potential social innovation project to community/volunteer groups from across the island.	
67	Better promote pollinator-friendly land management to Residents' Associations.	<ul style="list-style-type: none"> Dedicated resources for Residents' Associations developed and added to AIPP website 	AIPP Communities Officer	This action has not yet been progressed.	
68	Promote the AIPP to other community volunteer networks.	<ul style="list-style-type: none"> Explore possibility of providing training to Rural Social Schemes and other similar initiatives. Connect with relevant networks and ask them to inform members about the AIPP, e.g. Men's Sheds, University of the Third Age, Volunteer Now, etc. 	AIPP Communities Officer	<p>In 2021, the AIPP linked with Volunteer Ireland who promoted pollinator-friendly actions during National Volunteering Week.</p> <p>This action will be further progressed in future years</p>	
69	Recognise those towns/villages that are helping pollinators through eliminating pesticide use.	<ul style="list-style-type: none"> Maintain an online list of towns/villages that have decided to go pesticide free (herbicide, fungicide and insecticide) 	AIPP Communities Officer	This action has not yet been progressed.	

Target 2.6 Manage protected land in a pollinator-friendly way where appropriate

	Action	Progress measure	Responsibility	Progress by November 2021	
70	Encourage pollinator-friendly management of State and public-owned Nature Reserves and National Parks and, where appropriate, Natura 2000 and nationally designated sites in NI.	<ul style="list-style-type: none"> • Uptake where appropriate on a site-by-site basis • Develop demonstration/example sites on NIEA properties and use for education and knowledge exchange 	Northern Ireland Environment Agency (NIEA)	<p>Continued AIPP actions by NIEA regional teams include:</p> <ul style="list-style-type: none"> • New areas and sites created for pollinator use, with appropriate planting/reseeding/management, • Increased use of bug hotels • Reduction in pesticide application • Increased number of roadside verges and hedgerows managed for pollinators <p>Estates such as Stormont and Maryfield now being managed for pollinators.</p> <p>Working with Local Biodiversity Officers to develop potential wildflower areas and pollinator friendly management practices.</p>	
71	Incorporate pollinator-friendly management on designated land in Natura 2000 and nationally designated sites in RoI.	<ul style="list-style-type: none"> • Uptake where appropriate on a site-by-site basis 	National Parks and Wildlife Service (NPWS)	<ul style="list-style-type: none"> ✓ A number of sites are actively managed for pollinators (e.g., winter grazing at Kilkeran Lake & Castlereke Dunes SAC in County Cork and late cutting of species rich wet grassland at Ballykenny-Fisherstown Bog SPA in Co Longford). ✓ Individual sites will be encouraged to formally sign up as supporters of the AIPP in 2022. 	

Target 2.7 Make healthcare sites more pollinator friendly

	Action	Progress measure	Responsibility	Progress by November 2021	
72	Publish guidelines for pollinator-friendly management of hospital grounds, clinics and nursing homes.	<ul style="list-style-type: none"> • Publication of guidelines that also stress the additional benefits of pollinator actions to human health and wellbeing • Dissemination to all relevant bodies • Develop a new section of the website to provide resources for healthcare sites 	AIPP Communities Officer	This guideline is in the very early stages of development. It is planned that it will be progressed in 2022.	
73	Investigate a potential nature campaign for healthcare sites.	<ul style="list-style-type: none"> • Discuss with relevant bodies the possibility of a pilot scheme 	AIPP Communities Officer	This will not be progressed until Action 72 above is completed.	

Target 2.8 Complete policy investigations

	Action	Progress measure	Responsibility	Progress by November 2021	
74	Carry out a critical review of how some countries established a roadside verge cutting decree (e.g. the Flemish Roadside Act '1984' means roadside verges must be left uncut until after a certain date).	<ul style="list-style-type: none"> • Publish as a scoping study • Include a public consultation element 	AIPP team and relevant partners	This action has not yet been progressed.	
75	Create a roadmap towards eliminating	<ul style="list-style-type: none"> • Critically review the evidence-base for this approach 	AIPP team and relevant partners	This action has not yet been progressed.	

	pesticides on certain public lands (schools, hospitals, playgrounds).	<ul style="list-style-type: none"> • Publish roadmap in collaboration with relevant partners • Consider roll out as a small pilot – supported by information on alternatives, monitoring of impacts and social attitudes, etc. 			
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Target 2.9 Strengthen links between the AIPP and other national initiatives

	Action	Progress measure	Responsibility	Progress by November 2021	
76	Strengthen links between the AIPP and Climate Adaptation Plans.	<ul style="list-style-type: none"> • Publication of a guideline document linking pollinator/biodiversity actions to their carbon/climate benefits on public land. Active research area so timing of guideline document should be as appropriate • Establish appropriate AIPP actions as tools in nature-based climate change mitigation actions within Local Authorities – repackage actions in this context so that they can easily slot into Climate Adaptation Plans (or County Development Plans, Local Economic and Community Plans, etc.) 	AIPP team and relevant partners	This has not yet been progressed, but it is hoped that an MSc project will be carried out in 2022 to help further the action.	

		<ul style="list-style-type: none"> • Liaise with Climate Action Regional Offices (CARO) and link with Local Authority Climate Action Officers. 			
77	Explore and strengthen links between the AIPP and Green Infrastructure Planning.	<ul style="list-style-type: none"> • Publication of a guideline document linking pollinator/biodiversity actions to their Green Infrastructure benefits • Repackage pollinator actions in this context so that they can easily slot into Local Authority Green Infrastructure Plans 	AIPP team and relevant partners	This action has not yet been progressed.	
78	Strengthen links between the AIPP and health and wellbeing initiatives.	<ul style="list-style-type: none"> • Publication of a guideline document linking pollinator/biodiversity actions to their health and wellbeing benefits • Repackage pollinator actions in this context so that they can easily slot into Local Authority community wellbeing initiatives • Establish a working relationship with relevant bodies such as Healthy Ireland, Sports Ireland 	AIPP team and relevant partners	This action has not yet been progressed.	
79	Strengthen links between the AIPP and existing tree planting initiatives.	<ul style="list-style-type: none"> • Links created with 2020 DAFM scheme – Woodland Creation on Public Lands • Establishment of working relationships with other 	AIPP team and relevant partners	This action has not yet been progressed.	

		<p>existing tree planting initiatives, e.g. Tree Council of Ireland, Native Woodland Trust, Crann, Trees on the Land, Easytreesie etc.</p> <ul style="list-style-type: none"> • Encourage a proportion of trees planted to be pollinator-friendly and report on numbers planted • Pollinator-friendly tree guide published in collaboration with relevant partners 			
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Target 2.10 Track changes in pollinators on public land

	Action	Progress measure	Responsibility	Progress by November 2021	
80	Publish an annual review of public land actions.	<ul style="list-style-type: none"> • Development of an annual review outlining progress within the actions under this objective • Publication on AIPP website annually each December 	Coordinated by AIPP Communities Officer	This document provides a review of the public land actions in 2021.	
81	Track progress within the public sector.	<ul style="list-style-type: none"> • Number of public land sites logging their pollinator-friendly actions on <i>Actions for Pollinators</i> mapping system, https://pollinators.biodiversityireland.ie/. 	Coordinated by AIPP Communities Officer	As of the end of November 2021, 260 sites are logged on 'Actions for Pollinators' https://pollinators.biodiversityireland.ie/	
82	Monitor pollinators across a network of public sites.	<ul style="list-style-type: none"> • Investigate the framework necessary for a national pollinator monitoring scheme to include sites across 	National Pollinator Monitoring Scheme requires funding	In 2021, DAFM and NPWS granted initial funding for this scheme which is being managed by the National Biodiversity Data Centre. The project began in September 2021 and will be rolled out as a National	

		<p>farmland, public and protected land. This should be in line with the European Pollinator Monitoring Scheme recommendations (2020)</p> <ul style="list-style-type: none"> • Source funding and roll out this scheme to monitor pollinators across a network of public sites 		<p>Pollinator Monitoring Scheme pilot in 2022. 50 sites will be monitored across farmland, semi-natural sites and urban parks.</p>	
83	<p>Continue to manage and support Citizen Science monitoring schemes that track changes in pollinators across all land types, including public land.</p>	<ul style="list-style-type: none"> • Increase the number of Bumblebee Monitoring Scheme transects being carried out on public land. This is an expert-level Citizen Science scheme. • Increase in the number of regular Flower-Insect Timed Counts (FIT Counts) being completed on public land. This is a beginner-level Citizen Science scheme. • Publication of annual reports on the findings of both schemes 	<p>National Biodiversity Data Centre, CEDaR</p>	<p>Both the All-Ireland Bumblebee Monitoring Scheme and FIT Counts were managed and promoted by the National Biodiversity Data Centre in 2021. CEDaR promoted both schemes.</p> <p>Data submission within the Bumblebee Monitoring Scheme continues until 31st December 2021. Annual reports are produced in spring each year. 2020 annual report: https://biodiversityireland.ie/app/uploads/2021/10/Bumblebee-Monitoring-Scheme-Annual-Report-2012-2020.pdf</p> <p>Currently 247 FIT Counts have been submitted for 2021.</p> <p>New Bumblebee Monitoring Scheme transects have been established on public land in 2021. Many FIT Counts have taken place on public land.</p>	

OBJECTIVE 3: MAKING PRIVATE LAND POLLINATOR FRIENDLY

Target 3.1 Increase the number of gardens that are pollinator friendly

	Action	Progress measure	Responsibility	Progress by November 2021	
84	Provide comprehensive and freely available online resources for gardeners	<ul style="list-style-type: none"> Up-to-date resources provided on AIPP website To include: evidence-based guideline documents, flyers, videos, blogs, webinars, presentations, case studies, animations All 2015-2020 resources to be updated where necessary Investigate sustainable signage options that the public can use to indicate that they are making their garden pollinator friendly. 	AIPP Communities Officer	<p>This website is continually updated: https://pollinators.ie/gardens/</p> <p>New resources were added in 2021: https://pollinators.ie/wp-content/uploads/2021/03/Pledge-your-Garden-for-Pollinators_WEB.pdf</p>	
85	An Taisce to promote pollinator-friendly garden actions within their Green Communities network.	<ul style="list-style-type: none"> Promotion to members Uptake by community groups 	An Taisce	In March 2021 the new All-Ireland Pollinator Plan for 2021-2025 was widely promoted by An Taisce Green Communities on Facebook and Twitter. The press release and announcement of the new plan was also circulated via the monthly Green Communities/Green Flag Award news bulletin to approximately 1800 email recipients.	
86	Community Gardens Ireland to promote pollinator-friendly garden actions within their network.	<ul style="list-style-type: none"> Promotion to members Uptake by groups 	Community Gardens Ireland	In 2021 Community Gardens Ireland have supported new allotments and community gardens getting established in Ireland by providing them with advice that are pollinator friendly.	

				<p>As part of our AGM in March 2021, we included presentations by groups such as Irish Seed Savers who highlighted the need for more pollinator friendly and heritage planting. Our recent Community Gardens Ireland Gathering in October 2021 held in the Top of the City Community Garden in Waterford had a seed sharing area which encouraged groups from all over Ireland to share pollinator friendly seeds.</p> <p>Separately we have called on both governments through various consultations (Ireland and Northern Ireland) and a presentation to the Joint Oireachtas Committee on Social Protection, Community and Rural Development and the Islands for an increase in the amount of community growing spaces throughout Ireland. We referenced how this would be beneficial for pollinators and biodiversity and highlighted the Intergovernmental Panel on Climate Change report in 2019 that stated that urban agriculture initiatives like this benefit biodiversity in urban areas.</p> <p>We will continue to promote pollinator friendly actions, events and solutions through our social media channels, and as part of our recent Community Foundation for Ireland award with our partners Social Farms & Gardens Northern Ireland we are planning to encourage more pollinator friendly activities and the All-Ireland Pollinator Plan at workshops in 2022!</p>
87	GIY to promote pollinator-friendly	<ul style="list-style-type: none"> Promotion to members 	Grow It Yourself (GIY)	<ul style="list-style-type: none"> ✓ AIPP actions included in GIY GROWCircle Programme, reaching ≤800 people.

	garden actions within their network.	<ul style="list-style-type: none"> • Actions adopted at GIY HQ and used for demonstration purposes • Training courses offered at GIY HQ as appropriate 		<ul style="list-style-type: none"> ✓ AIPP actions included in all GIY newsletters, reaching ≤2500 people. ✓ AIPP actions at GROWHQ, Waterford City, Co. Waterford: <ul style="list-style-type: none"> • Management of grass areas to maximise habitat for pollinators i.e. leaving most areas to form informal meadows with cutting in July post-flowering. • Ensuring any ornamental areas are planted with pollinator-friendly plants. • Managing productive areas with no spraying of agro-chemicals (even ones permitted under the organic standards). • Leaving vegetable plants to flower (particularly brassicas) where possible. • Leaving hedge bottoms with rough vegetation to provide nesting areas. • Weekly garden walk and talks through the Summer on how to manage a garden to maximise benefit to pollinators. ✓ Enhancing Biodiversity on a School Site added as a learning outcome to GIY Teacher Continuous Professional Development course, taught to 25 teachers biannually. 	
88	Raise awareness to discourage the importation of wild pollinators into	<ul style="list-style-type: none"> • Short guideline document developed explaining the dangers of imported 	AIPP team	This action has not yet been progressed.	

	gardens, e.g. Red Mason Bee.	<p>pollinators to the health of our native species</p> <ul style="list-style-type: none"> • Social media campaign to discourage gardeners from buying non-Irish Red Mason Bee colonies online 			
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Target 3.2 Increase the network of AIPP business supporters

	Action	Progress measures	Responsibility	Progress by November 2021	
89	Fully support and grow the network of business supporters. Currently stands at 283 (end 2020).	<ul style="list-style-type: none"> ✓ Increase the number of business supporters of the AIPP ✓ Provide day-to-day support to the large network of business supporters ✓ Organise and run an event for businesses ✓ Provide training courses for businesses ✓ Organise an annual pollinator award for businesses ✓ Run a regular webinar series for businesses ✓ Monthly digital newsletter for businesses ✓ Regularly promote the network through mainstream and social media 	AIPP business officer (funded by Bord Bia from June-Dec 2021)	<ul style="list-style-type: none"> ✓ The number of business supporters of the AIPP up to the 31st October 2021 has increased to 416. This is an increase of 133 in 2021. ✓ From 2021, the Business Supporters Annual Review is mandatory. To maintain the integrity of the network, those who did not submit an update of their activities in support of the Plan have been removed from the list/website etc. (N.B. these businesses may engage again at any point). The adjustment is reflected in the overall figure for 2021 which now stands at 327 business supporters. ✓ Day to day support to the business supporters' network has included: registering new members and short online presentations to provide a 'snapshot' of good practice from Day 1. Also help in data mapping on the 'Actions for Pollinators' unique data-mapping portal. ✓ It was not possible to organise an event due to ongoing Covid-19 restrictions. ✓ An annual pollinator award for businesses has not yet been progressed but will be considered in future years. 	

				<ul style="list-style-type: none"> ✓ Three webinars were delivered to Origin Green companies in collaboration with Bord Bia. ✓ The Agri-business officer also delivered several webinars to the larger corporates seeking to provide educational webinars for employees on pollinators-biodiversity. ✓ A monthly digital newsletter has been issued each month to AIPP business supporters. ✓ Key updates have been posted on Twitter/Facebook/Instagram/LinkedIn.
90	Provide comprehensive and freely available online resources for businesses at	<ul style="list-style-type: none"> • Up-to-date resources provided on AIPP website To include: evidence-based guideline documents, flyers, videos, blogs, webinars, presentations, case studies, animations • All 2015–2020 resources to be updated where necessary 	AIPP business officer (funding dependent)	This website is continually updated https://pollinators.ie/businesses/
91	Disseminate relevant resources to the business community through existing networks.	<ul style="list-style-type: none"> • Dissemination of information through existing networks 	Bord Bia, Business in the Community	Both partners have promoted the AIPP business framework in 2021. The AIPP has strengthened its alliances through Bord Bia’s Origin Green food sustainability programme – the AIPP is now aligned as ‘pollinator actions’ within members biodiversity targets. It is also aligned with Business in the Community (Ireland) within its ‘Biodiversity Handbook for Business’.
92	Establish a dedicated framework for	<ul style="list-style-type: none"> • Establish framework/charter whereby garden centres 	AIPP business officer (funding dependent)	This action has not yet been progressed

	Garden Centre supporters.	<p>can sign up as a supporter of the AIPP</p> <ul style="list-style-type: none"> • Increase the number of garden centre supporters who sign up and promote the AIPP, pollinator-friendly plants, and the pollinator-friendly pesticide code. 			
93	Publish new guideline documents with evidence-based pollinator actions that are industry-specific.	<ul style="list-style-type: none"> • Investigate which guideline documents are required and prioritise a programme for their development • Publish these industry-specific documents. May include, but not limited to: Agri-food businesses, Developers, Wind farms, Solar farms, Quarries. 	AIPP team and relevant partner organisations	<p>Guidelines for Wind Farms were published in 2021: https://pollinators.ie/wp-content/uploads/2021/04/Windfarm_Pollinator_Guidelines-WEB.pdf</p> <p>Resources for Aviation are planned for 2022</p>	

Target 3.3 Increase the number of sports clubs that are pollinator friendly

	Action	Progress measure	Responsibility	Progress by November 2021	
94	Provide comprehensive and freely available online resources for Sports Clubs at	<ul style="list-style-type: none"> • Guideline document (<i>Pollinator-friendly management of sports clubs, 2020</i>) distributed to clubs • Promotion and dissemination 	AIPP Communities Officer	<p>This website is kept up to date: www.pollinators.ie/sportsclubs</p> <p>New resources have not been added in 2021</p>	
95	Golf Course Superintendents Association Of Ireland	<ul style="list-style-type: none"> • Guideline document (<i>Pollinator-friendly management of golf</i>) 	GCSAI	This action was unable to be progressed fully due to Covid-19	

	(GCSAI) to encourage golf courses to become more pollinator friendly.	<p><i>courses, 2019) promoted to network</i></p> <ul style="list-style-type: none"> • Uptake by golf courses 			
96	Gaelic Athletic Association (GAA) to encourage clubs to become more pollinator friendly.	<ul style="list-style-type: none"> ✓ Clubs encouraged to become more pollinator-friendly within the Green Club programme ✓ Uptake by clubs 	GAA	<p>GAA clubs involved in the GAA's new Green Club programme have undertaken a range of actions in 2021 to become more pollinator friendly. These include planting projects such as the greening of club walkways, the planting of native trees on club grounds, collaboration with Pocket Forests, the planting of native wildflowers, the creation of a green wall, the revision of mowing schedules on non-playing areas and the installation of habitats for birds, insects and bees. GAA Green Clubs have also promoted pollinator awareness and engagement on their club grounds and among their members by creating and installing informational signage and biodiversity murals and notice boards and by organising on-site educational events. Clubs have been supported in their actions with guidance from the new Pollinator-friendly management of Sports Clubs document and the GAA has facilitated Green Club pollinator and biodiversity webinars with experts from the National Biodiversity Data Centre and RSPB NI.</p>	

Target 3.4 Increase the number of faith communities that are pollinator friendly

	Action	Progress measures	Responsibility	Progress by November 2021	
97	Eco Congregation Ireland to promote pollinator-friendly actions.	<ul style="list-style-type: none"> • Guideline document (<i>Faith Communities: actions to help pollinators, 2018) promoted to members</i> 	Eco Congregation Ireland	<p>ECI promoted the <i>Faith Communities: Actions to Help Pollinators</i> document on our website https://www.ecocongregationireland.com/2018/09/24/faith-communities-actions-to-help-pollinators/. We included it in</p>	

				<p>our newsletter edition September 2018. We also shared it on Facebook at the time.</p> <p>We also promote it regularly in talks, sermons and in our webinars. It's also linked on our website and in our suggested actions for churches getting started.</p>
98	Provide freely available online resources for faith communities at	<ul style="list-style-type: none"> • Up-to-date resources provided on AIPP website. To include: evidence-based guideline documents, flyers, videos, blogs, webinars, presentations, case studies, animations • All 2015–2020 resources to be updated where necessary. 	AIPP Communities Officer	<p>This website is kept up to date: www.pollinators.ie/faithcommunities</p> <p>New resources were not added in 2021</p>
99	Publish a guideline document outlining evidence-based pollinator actions for graveyards.	<ul style="list-style-type: none"> • Development of guideline document • Publication and dissemination • Uptake by sites. 	AIPP Communities Officer & partner organisations	<p>This action will be progressed in future years. Laois and Offaly County Councils are delivering a Just Transition project <i>Conservation and Pollination - Medieval Churches Laois and Offaly</i> during the years 2021 to 2023. The guideline document will be developed as part of this project.</p>

3.5: Increase the number of Group Water Scheme sites that are pollinator friendly

	Action	Progress measures	Responsibility	Progress by November 2021
100	National Federation of Group Water Schemes (NFGWS) to encourage all Schemes to manage their sites (sources,	<ul style="list-style-type: none"> ✓ Guideline document (<i>Pollinator-friendly management of Group Water Scheme Sites, 2018</i>) distributed to Schemes ✓ Uptake by Schemes 	National Federation of Group Water Schemes (NFGWS)	<ul style="list-style-type: none"> ✓ The guidance document (<i>Pollinator friendly management of group water scheme sites</i>) was made available to every GWS following official launch at the 2019 Rural Water Conference.

	reservoirs, treatment plants) in a pollinator-friendly way.	<ul style="list-style-type: none"> ✓ Promotion of biodiversity to wider drinking water catchments through dedicated initiatives with rural communities e.g. 'I've planted a tree and gone pesticide free' campaign ✓ Establishment of a dedicated biodiversity category in a future Group Water Scheme excellence awards programme 		<ul style="list-style-type: none"> ✓ Gardening for biodiversity books have also been made available to all GWS. ✓ The NFGWS were successful in obtaining LEADER funding for 6 GWS in Co. Roscommon, aimed at both training GWS boards and the creation of biodiversity actions plans. The recommendations of these plans will be implemented shortly. ✓ Additional resources (framework & guidance documents) are now available to guide schemes on how to minimise the effects of capital works on local biodiversity. ✓ The 'I've planted a tree and gone pesticide free' has been rolled out across Roscommon (over 7500 trees distributed) and this is being rolled out in areas of Limerick, Tipperary, Mayo and the border regions currently. ✓ The inaugural Group Scheme excellence awards programme was launched in 2020. 4 GWS achieved excellence in the biodiversity section. ✓ Another work programme, involving an additional 40 GWS is currently underway, focusing on making GWS both biodiversity and climate friendly, not only in their own operations, but in the wider catchment. 	
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3.5: Track changes in pollinators on private land

	Action	Progress measure	Responsibility	Progress by November 2021	
101	Publish an annual review of private land actions.	<ul style="list-style-type: none"> Development of an annual review outlining progress within the actions under this objective Publication on the website annually each December 	Coordinated by AIPP Communities Officer	This document provides a review of the private land actions in 2021.	
102	Track progress within the garden sector.	<ul style="list-style-type: none"> Number of garden sites logged on the mapping system <i>Actions for Pollinators</i> https://pollinators.biodiversityireland.ie/. 	Coordinated by AIPP Communities Officer	<p>As of the end of November 2021, 636 garden sites are logged on 'Actions for Pollinators' https://pollinators.biodiversityireland.ie/</p> <p>A total of 1,352 people have 'Pledged their Garden' for pollinators as part of that new initiative in 2021 https://pollinators.ie/gardens/</p>	
103	Track progress within the business sector.	<ul style="list-style-type: none"> Development of an annual report on the actions taken by the business supporter network Publication of this annual report on AIPP website each December Number of business sites logged on the mapping system <i>Actions for Pollinators</i> https://pollinators.biodiversityireland.ie/ 	Coordinated by AIPP Business Officer (funding dependent)	<p>The 2021 Annual Review of actions taken by business supporters is available here: link</p> <p>As of the end of November 2021, 309 business sites are logged on 'Actions for Pollinators' https://pollinators.biodiversityireland.ie/</p>	
104	Track progress within the sports club sector.	<ul style="list-style-type: none"> Number of sports club sites logged on the mapping system <i>Actions for Pollinators</i> 	Coordinated by AIPP Communities Officer	The 'Actions for Pollinators' mapping system has not yet been opened up to Sports Clubs. This will take place in 2022	

		https://pollinators.biodiversityireland.ie/			
105	Track progress within the faith community sector.	<ul style="list-style-type: none"> Number of faith community sites logged on the mapping system <i>Actions for Pollinators</i> https://pollinators.biodiversityireland.ie/ 	Coordinated by AIPP Communities Officer	As of the end of November 2021, 15 faith community sites are logged on 'Actions for Pollinators'. The system has not yet been actively promoted to the sector. https://pollinators.biodiversityireland.ie/	
106	Track progress across Group Water Scheme sites.	<ul style="list-style-type: none"> Number of Group Water Scheme sites logged on the mapping system <i>Actions for Pollinators</i> https://pollinators.biodiversityireland.ie/ 	Coordinated by AIPP Communities Officer	As of the end of November 2021, 34 Group Water Scheme sites are logged on 'Actions for Pollinators' https://pollinators.biodiversityireland.ie/	
107	Continue to manage and support Citizen Science monitoring schemes that track changes in pollinators across all land types, including private land.	<ul style="list-style-type: none"> Increase the number of Bumblebee Monitoring Scheme transects being carried out on private land. This is an expert-level Citizen Science scheme Increase in the number of regular Flower-Insect Timed Counts (FIT Counts) being completed on private land. This is a beginner-level Citizen Science scheme Publication of annual reports on the findings of both schemes 	National Biodiversity Data Centre, CEDaR	<p>Both the All-Ireland Bumblebee Monitoring Scheme and FIT Counts were managed and promoted by the National Biodiversity Data Centre in 2021. CEDaR promoted both schemes.</p> <p>Data submission within the Bumblebee Monitoring Scheme continues until 31st December 2021. Annual reports are produced in spring each year. 2020 annual report: https://biodiversityireland.ie/app/uploads/2021/10/Bumblebee-Monitoring-Scheme-Annual-Report-2012-2020.pdf</p> <p>Currently 247 FIT Counts have been submitted for 2021.</p> <p>New Bumblebee Monitoring Scheme transects have been established on private land in 2021. Many FIT Counts have taken place on private land.</p>	

OBJECTIVE 4: ALL-IRELAND HONEY BEE STRATEGY

The 2021 All-Ireland Honey bee Strategy annual report was compiled by Dr Archie Murchie

Target 4.1 Education and Knowledge Transfer

	Action	Progress measure	Responsibility	Progress by November 2021	
108	Conferences used as a means of disseminating good practice to beekeepers.	<ul style="list-style-type: none"> Conferences organised and used as a means of disseminating good practice 	UBKA, FIBKA, INIB, IBA CLG, NIHBS	Conferences have continued mostly through online webinars. Beekeeping organisations have confirmed they are happy to share details of each-others' events	
109	Expand beekeeping qualification courses to cover other environmental issues, including impacts of beekeeping on native pollinators.	<ul style="list-style-type: none"> Courses expanded and participants informed about other environmental issues Relevant fact sheets produced 	UBKA, FIBKA, INIB (via BBKA), IBA CLG	The beekeeping organisations have agreed to include greater awareness of all pollinators within their courses.	

Target 4.2 Communication

	Action	Progress measure	Responsibility	Progress by November 2021	
110	Establish a Steering Group to oversee the All-Ireland Honey bee Strategy 2021–2025.	<ul style="list-style-type: none"> Honey bee Strategy Steering Group established Twice-yearly meeting to discuss progress and share expertise Group to promote the Strategy. 	Honey bee Strategy Steering Group	The Steering Group has been established with representatives of the main stakeholders throughout Ireland. Meetings have taken place in May and November 2021 with full representation. The Group has agreed to promote the AIPP Honey bee Strategy at appropriate opportunities.	

111	Beekeeping associations to promote the aims of this strategy and the wider All-Ireland Pollinator Plan to members.	<ul style="list-style-type: none"> • Strategy promoted via conferences • Strategy promoted via roadshow and workshops • Strategy promoted via teaching/mentoring activities • Strategy promoted in Beekeeping publications and newsletters 	UBKA, FIBKA, INIB, IBA CLG, NIHBS	All beekeeping organisations represented have agreed to promote the AIPP and Honey bee Strategy. There are some examples where this has happened already at conferences.	
112	Honey bee Strategy Steering Group to provide evidence-based guidelines to stakeholders as necessary to ensure healthy Honey bees and effective beekeeping.	<ul style="list-style-type: none"> • Agree communication strategy and provide evidence-based guidelines to relevant organisations as appropriate (e.g. Farming Unions) 	Honey bee Strategy Steering Group	This is a work in progress. Much information is available already within the beekeeping community. We need discussions on the key messages that need to be communicated and to who.	
113	Beekeeping associations to continue to promote and support the wider All-Ireland Pollinator Plan in public engagement activities.	<ul style="list-style-type: none"> • Associations to promote the AIPP as relevant 	UBKA, FIBKA, INIB, IBA CLG, NIHBS	Representatives of the beekeeping organisations have agreed in principle to support and promote the All-Ireland Pollinator Plan within their education and outreach activities.	

Target 4.3 Surveillance and Biosecurity

	Action	Progress measure	Responsibility	Progress by November 2021	
114	Prepare a paper to establish the need for Honey bee Inspectors in RoI.	<ul style="list-style-type: none"> Publication of a paper establishing the need and remit for seasonal bee inspectors to support beekeepers 	Honey bee Strategy Steering Group	In progress. A bullet-point list of key benefits of bee inspectors has been circulated amongst the Steering Group.	
115	DAERA to circulate the agreed NI Bee Health Contingency Plan and updated Strategy for the sustainability of the Honey bee when completed.	<ul style="list-style-type: none"> Plan circulated 	DAERA	<p>The NI Bee Health Contingency Plan is available on the DAERA website under bee health (www.daera-ni.gov.uk/articles/bee-health). The plan is reviewed each year but needs updating to reflect current changes in legislation and Brexit issues.</p> <p>The original Strategy for Sustainability of the Honey bee was published in 2011 and due to be updated. However, this work is paused as there are administrative changes in ownership of bee health within Government bodies reflecting legislative changes in Europe.</p>	
116	DAERA and DAFM to coordinate surveillance and share information on bee health, invasive species, and plant health (where relevant to bee health, e.g. pathway analyses).	<ul style="list-style-type: none"> North-South meetings to maximise cooperation 	DAFM, DAERA	Meetings continue at an individual level, but high-level formal meetings are currently paused due to ongoing Brexit issues.	

117	Voluntary registration to be encouraged in RoI prior to new EU legislation, which may make registration compulsory.	<ul style="list-style-type: none"> Organisations to actively encourage members to register 	FIBKA, IBA CLG, NIHBS, DAFM	Discussed and agreed in principle but no further action to date.	
118	Voluntary registration to be encouraged in NI through the 'DataBees' platform.	<ul style="list-style-type: none"> Organisations to actively encourage members to register 	UBKA, INIB, NIHBS, DAERA	This is ongoing. An overview of the 'DataBees' recording system was presented to the steering group, with a list of benefits of using the system.	
119	Data on overwintering losses and disease prevalence from the COLOSS survey to be shared at an island-wide scale.	<ul style="list-style-type: none"> Information shared across the island Disseminated by beekeeping organisations 	AFBI, DAFM	RoI COLOSS survey data published in An Beachaire. AFBI annual survey started in 2009 and published annually on the AFBI website. Composite data are normally published in the Journal of Apicultural Research as open access papers.	
120	Honey bee Strategy Steering Group to bring associations together to discuss and agree a common policy on importations.	<ul style="list-style-type: none"> Clarify current rules and regulations Agree principles to be published and promoted by Beekeeping Associations 	Honey bee Strategy Steering Group, DAERA, DAFM	Ongoing. The beekeeping organisations agree that sustainability of locally produced Honey bees is the correct strategy, which will be achieved through education, discouraging excessive imports and supporting local queen rearing.	
121	Complete and publish all-Ireland pest risk assessments for invasive pests	<ul style="list-style-type: none"> Disseminate DAERA Asian Hornet contingency plan 	AFBI, DAFM, DAERA NIEA (invasive species)	The Northern Ireland Rapid Response Contingency Plan for Asian Hornet is available on:	

	and pathogens of Honey bees.	<ul style="list-style-type: none"> • Publish All-Ireland risk assessments for invasive pests and existing pathogens • Publish All-Ireland risk assessments for unknown but emerging pests and pathogen 		http://invasivespeciesireland.com/wp-content/uploads/2020/06/Northern-Ireland-AH-RR-Contingency-Plan-minus-contacts-details.pdf Draft risk assessments for some pests have been produced by AFBI.	
122	Investigate the feasibility of a unified approach to managing Foulbrood on the island of Ireland.	<ul style="list-style-type: none"> • Clarify statutory rules North and South • Recognition of the diseases' importance and management options explained • Honey bee Strategy Steering Group to agree principles • Disease ID sheets on the AIPP website for both forms of Foulbrood • Education events to focus on foulbrood • Association questionnaire for options re foulbrood (South) 	AFBI, DAFM, DAERA	Ongoing work. Foulbrood cases in NI and ROI are published on the DAERA and DAFM websites respectively along with statutory rules: www.daera-ni.gov.uk/articles/bee-health https://assets.gov.ie/124541/622ed885-8fcc-4794-a874-af1f4f1a4f41.pdf Foulbrood management is a frequent topic for invited speakers and workshops at association events.	

Target 4.4 Conservation of the native Honey bee strain, *Apis mellifera mellifera*

Research has shown that Ireland has a pure population of *Apis mellifera mellifera*, the native Irish black bee. Elsewhere in Northern Europe, the original home of *Apis mellifera mellifera*, it has been severely hybridized. Ireland has a duty to conserve this genetic resource.

	Action	Progress measure	Responsibility	Progress by November 2021	
123	NIHBS to continue to promote the conservation of the native Irish Black Bee.	<ul style="list-style-type: none"> • Continued activities of the NIHBS 	NIHBS	Work is ongoing (please see www.NIHBS.org). The Society is actively represented in the Steering Group.	

124	Beekeeping sector to encourage an education process on the merits of the subspecies/strains of Honey bee including the Irish Black Bee.	<ul style="list-style-type: none"> This to include identification of subspecies, issues of local provenance and climatic suitability across the island of Ireland The Irish strain of <i>Apis mellifera mellifera</i> encouraged where appropriate 	FIBKA, UBKA, INIB, IBA CLG, DAFM, DAERA	Ongoing work. The beekeeping associations agree in principle to this target and there are examples of educational events on the suitability of different bee subspecies/strains, including A.m.m.	
125	Publication of an agreed management strategy for <i>Apis mellifera mellifera</i> on the island of Ireland.	<ul style="list-style-type: none"> Publication of the strategy. To include development of a roadmap towards the island of Ireland being recognised as a 'stronghold' for <i>Apis mellifera mellifera</i> 	NIHBS, NUI Galway	<p>Ongoing work. Steering Group discussions have been on developing a strategy to recognise Ireland (or areas) as a special conservation area (stronghold) for A.m.m.</p> <p>With NIHBS support, Kildare Green Party Senator Vincent P. Martin introduced a Bill to the Seanad in October 2021 on 'Protection of the Native Irish Honey Bee Bill 2021', to ban the importation of non-native Honey bees into Ireland.</p>	

Target 4.5 Data sharing

	Action	Progress measure	Responsibility	Progress by November 2021	
126	DAFM and AFBI to make results of pesticide surveys publicly available.	<ul style="list-style-type: none"> Results of pesticide surveys made available in Rol Results of pesticide surveys made available in NI 	AFBI, DAFM	<p>NI pesticide usage data available on: www.afbini.gov.uk/articles/pesticide-usage-monitoring-reports</p> <p>Rol pesticide usage data at: https://www.pcs.agriculture.gov.ie/sud/pesticidestatistics/</p>	
127	Promote <i>BeeConnected</i> in NI as a mechanism to	<ul style="list-style-type: none"> Beekeeping Associations to encourage members to register 	UBKA, INIB, UFU, NIHBS	BeeConnected (https://beeconnected.org.uk) is an up and running app supported by the beekeeping associations and the Ulster Farmers Union. The	

	connect beekeepers and farmers so that beekeepers can be kept informed about spraying events in their vicinity.	<ul style="list-style-type: none"> • <i>BeeConnected</i> promoted to farmers by the Ulster Farmers Union 		scheme was launched in NI in 2017 and continues to be promoted.	
128	Investigate possible mechanisms linking farmers and beekeepers so that they can be notified of spraying events in ROI.	<ul style="list-style-type: none"> • Possible mechanisms identified 	Honey bee Strategy Steering Group	Ongoing work. The Steering Group need to confirm the status of BeeConnected in ROI and whether it can be promoted here.	
129	Honey bee Strategy Steering Group to develop a roadmap towards a system to capture hive density per hectad (10km ²).	<ul style="list-style-type: none"> • Road map developed to: <ul style="list-style-type: none"> - enable management of the overall pollinator resources across the island - enable implementation of alerts and action plans against new pests/pathogens - avoid selling non-native Honey bees into Voluntary Conservation Areas. • Explore the possibility of testing in one specific region (e.g. Enniskillen). 	Honey bee Strategy Steering Group, UBKA	<p>Work in progress. DAERA's 'DataBees' allows apiaries to be mapped and therefore some estimate of hive density. However, there would be caveats with respect to coverage and accuracy of hive numbers, which will fluctuate, and hives may also be moved.</p> <p>There was a general feeling from the Steering Group that hive density was not a major problem, and that Honey bees do well in areas with good pollinator resources, which in turn benefits other pollinator species.</p>	

Target 4.6 Tracking progress

	Action	Progress measure	Responsibility	Progress by November 2021	
130	Publish an annual review of the All-Ireland Honey bee Strategy 2021–2025.	<ul style="list-style-type: none"> Annual review published outlining progress against each of the actions Annual reviews made available via beekeeping organisation websites. 	Honey bee Strategy Steering Group	This document fulfills this action.	

All-Ireland Honey bee Strategy Steering Group

Member	Affiliation
Archie Murchie (Chair)	AFBI (deputy Ivan Forsythe)
Susie Hill	UBKA
Mary Montaut	FIBKA
Lyndon Wortley	INIB
Aoife Nic Giolla Coda	NIHBS
Edward Hill	IBA CLG
Thomas Williamson	DAERA (chief bee inspector NI)
Mary Coffey	DAFM
Úna FitzPatrick/Jane Stout	All-Ireland Pollinator Plan Steering Group

Acronyms			
AFBI	Agri-Food and Biosciences Institute	INIB	Institute of Northern Ireland Beekeepers
BBKA	British Beekeepers Association	NIHBS	Native Irish Honey Bee Society
DAERA	Department of Agriculture, Environment and Rural Affairs	NUI Galway	National University of Ireland, Galway
DAFM	Department of Agriculture, Food & the Marine	UFU	Ulster Farmers' Union
FIBKA	Federation of Irish Beekeepers' Associations	UKBA	Ulster Beekeepers Association
IBA CLG	Irish Beekeepers' Association CLG		

OBJECTIVE 5: CONSERVING RARE POLLINATORS

Target 5.1 Ensure rare pollinators are protected by legislation where appropriate

	Action	Progress measure	Responsibility	Progress by November 2021	
131	Protect rare pollinators through the Wildlife Act in RoI when warranted.	<ul style="list-style-type: none"> Species added to Schedule 5 of Wildlife Act 	National Parks and Wildlife Service (NPWS)	Proposals for Schedule 5 listing will be brought will be considered in 2022.	
132	Ensure rare pollinators are protected by legislation in NI where appropriate.	<ul style="list-style-type: none"> Included on Priority Species list, under The Wildlife and Natural Environment Act 	Northern Ireland Environment Agency (NIEA), Centre for Environmental Data and Recording NI (CEDaR)	First Tranche of the NIPS Review approved by CNCC, with implementation planned for early Spring 2022. This will include reviewed Bees (14 species), and macro moths (66 species). A second tranche is progressing for consultation and CNCC approval in Spring 2022. This will include butterflies (11 species).	

Target 5.2 Raise awareness of rare pollinators

	Action	Progress measure	Responsibility	Progress by November 2021	
133	Work to develop initiatives to assist recovery of the endangered Great Yellow Bumblebee (<i>Bombus distinguendus</i>).	<ul style="list-style-type: none"> Guideline document (<i>Protecting rare pollinators: Great Yellow Bumblebee</i>, 2019) promoted and distributed to all relevant stakeholders Awareness raising within local communities in remaining Great Yellow Bumblebee strongholds (Mullet Peninsula, Mayo) 	National Biodiversity Data Centre, NPWS, BirdWatch Ireland, Mayo County Council, Belmullet Tidy Towns, University College Dublin (UCD)	BirdWatch Ireland: In January, and in conjunction with UCD, a paper investigating the ecology of the Great Yellow Bumblebee was published in the Journal of Insect Conservation; these findings were summarised in the Autumn edition of our Wings magazine helping to raise awareness amongst our members and supporters. The management of our reserves on the Mullet Peninsula continues to be sympathetic to the ecological needs of the Great Yellow Bumblebee. Using this knowledge, and working closely with Belmullet Tidy Towns, Mayo County Council, UCD and others, then the Great Yellow Bumblebee	

		<ul style="list-style-type: none"> • Development of a species recovery plan for the Great Yellow Bumblebee • Continued management of BirdWatch Ireland reserves in the Mullet Peninsula to also support the Great Yellow Bumblebee. • Investigation into funding mechanisms to increase the area of land that is managed to support the Great Yellow Bumblebee. 		<p>Conservation Group was formed. The Group successfully received funding, through the European Innovation Partnership, to develop a pilot results-based project which is to be implemented across the Mullet Peninsula and Erris mainland, Co. Mayo during 2022.</p>	
134	<p>Work to develop initiatives to assist recovery of the near threatened Large Carder Bee (<i>Bombus muscorum</i>).</p>	<ul style="list-style-type: none"> • Continue to monitor its status - data from the All-Ireland Bumblebee Monitoring Scheme (2012-2019) shows an ongoing decline. • Identify a network of key locations where healthy populations remain • Work with local authorities and local communities to raise awareness of the Large Carder bee in these areas and to encourage pollinator-friendly actions to support it 	<p>AIPP team in collaboration with relevant partners</p>	<p>The 2012-2020 All-Ireland Bumblebee Monitoring Scheme data continues to show an ongoing decline in the Large Carder Bee.</p> <p>Work has begun with local communities who have populations of this bee within their local area. <i>Sustainable Skerries</i> have carried out excellent work to raise awareness and create new habitat in 2021.</p> <p>In future years, it is hoped to use the example of Skerries to encourage other local communities to take action to protect this rare species. It is hoped that at least one local community in Munster and in Connaught can be encouraged to follow suit in 2022 (the bee is very rare in Ulster).</p>	
135	<p>Develop resources on rare pollinators</p>	<ul style="list-style-type: none"> • As resources are developed, all collated and added to the website: 	<p>AIPP team in collaboration with relevant partners</p>	<p>This has not been progressed, but additional resources around the Large Carder bee and the Northern Colletes bee are planned for 2022</p>	

	and make freely available.	https://pollinators.ie/helping-endangered-pollinators/			
136	Promote rare pollinator species through social media campaigns.	<ul style="list-style-type: none"> • Social media campaign to raise awareness on the status, identification, and ecology of one rare pollinator species each year • Great Yellow Bumblebee, Large Carder Bee and Northern Colletes bee to be prioritised initially. Others to be finalised in future years. 	AIPP team in collaboration with relevant partners	Rare species continue to be promoted on social media, but this will be more formalised in future years.	

Target 5.3 Publish best practice information on protecting rare pollinators

	Action	Progress measure	Responsibility	Progress by November 2021	
137	Publish how-to-guides on protecting rare pollinator species.	<ul style="list-style-type: none"> • New species-specific guides published within the <i>Protecting rare pollinators</i> series when a sufficient evidence-base is available. 	AIPP team in collaboration with relevant partners	Some preparatory work has taken place in 2021. In 2022, it is hoped that a guide on the Northern Colletes Bee will be published in collaboration with the National Trust.	

Target 5.4 Publish and update All-Ireland conservation assessments for pollinating groups (Red Lists)

	Action	Progress measure	Responsibility	Progress by November 2021	
138	Publish an All-Ireland Hoverfly Red List.	<ul style="list-style-type: none"> • Publication of an All-Ireland Red List outlining the conservation status of Ireland's hoverfly species. 	NPWS, NIEA	Planned for 2022	

139	Develop a roadmap towards updating the All-Ireland Bee Red List (2006).	<ul style="list-style-type: none"> • Publication of an updated checklist of Irish Bees • Development of a roadmap outlining necessary data collection that would allow updating of the 2006 Bee Red List. 	NPWS, NIEA, National Biodiversity Data Centre, CEDaR	<p>Preparatory work is ongoing to publish an updated checklist of Irish Bees. Currently there are 100 bee species in Ireland. The most recently added was the Ivy Bee, which arrived in Ireland for the first time in October 2021.</p> <p>The National Pollinator Monitoring Scheme (Action 24) will generate a new dataset that can contribute towards updating of the Bee Red List over the coming years.</p>	
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Target 5.5 Track change in rare pollinators

	Action	Progress measure	Responsibility	Progress by November 2021	
140	Conduct dedicated surveys to establish the status and distribution of the Northern Colletes bee and the Red-shanked Carder bee in NI.	<ul style="list-style-type: none"> • NIEA to investigate whether surveys could be delivered through grant funding by partner organisations, e.g. Buglife • Surveys successfully completed. 	NIEA and funded partners	<p>Buglife, in partnership with National Trust, carried out surveys for Northern Colletes in 2021 on suitable habitat on north coast.</p> <p>Planned survey for Red-shanked Carder bee for 2022 at Killard ASSI.</p>	
141	Attempt to increase the number of volunteers tracking rare species within the All-Ireland Bumblebee Monitoring scheme.	<ul style="list-style-type: none"> • Pending resources, identification workshops on the following rare bumblebee species, run in areas where they occur: Great Yellow Bumblebee, Shril Carder Bee, Mountain Bumblebee • Attempts made to encourage Citizen Science volunteers to 	National Biodiversity Data Centre	This was unable to be progressed in 2021 due to Covid restrictions.	

		walk specific routes to monitor these rare bumblebees.			
142	Organise field meetings with volunteer recording networks to search for rare species.	<ul style="list-style-type: none"> Rare species hunts organised in appropriate areas, where funding allows. This will have to be limited to species that can be easily identified in the field. 	National Biodiversity Data Centre, CEDaR, BugLife	This was unable to be progressed in 2021 due to Covid restrictions.	

OBJECTIVE 6: STRATEGIC COORDINATION OF THE PLAN

Target 6.1 General awareness raising

	Action	Progress measure	Responsibility	Progress by November 2021	
143	Continually maintain and update AIPP website to provide stand-alone toolkit for those who want to help.	<ul style="list-style-type: none"> Continued management and updating of website pollinators.ie 	AIPP team	www.pollinators.ie continues to be maintained and regularly updated	
144	Maintain Twitter and Instagram accounts.	<ul style="list-style-type: none"> Growth in the number of followers Run dedicated annual campaigns on both platforms. May include, but not limited to: Let Dandelions Be, No Mow May 	AIPP team	<p>As of the end of November 2021, the number of Twitter followers has increased to 5,997.</p> <p>The number of Instagram followers has increased to 2,771.</p> <p>Social media campaigns (Let Dandelions Bee & No Mow May) were run in 2021 and will be repeated in 2022. Investigations are also underway on additional social media campaigns for future years.</p>	
145	Promote the AIPP in national and local media.	<ul style="list-style-type: none"> Maintain up-to-date media toolkit, to include bank of photographs Publish press release for key events Development of a range of promotional materials to promote pollinators 	AIPP team	<p>A media section is maintained on the website https://pollinators.ie/media/ Press releases have been issued where relevant.</p> <p>The AIPP has been very widely covered in the National media across 2021, particularly around the launch of the new Plan in late March. In addition to more than 30 articles in print and digital newspaper versions, promotion has also included:</p>	

		<ul style="list-style-type: none"> Track numbers of published media articles and other engagements 		<ul style="list-style-type: none"> ✓ 13 radio interviews/podcasts ✓ 67 talks <p>Significant promotion occurred around World Bee Day in 2021 (Action 149 below)</p> <p>To mark their 35th anniversary, the AIPP was delighted to partner with Gaisce on a large campaign 'Bulbs for Bees'. In autumn 2021, the public was encouraged to plant pollinator-friendly bulbs to provide much need food for wild bees next spring.</p>
146	Focus engagement efforts on new audiences.	<ul style="list-style-type: none"> Number of engagement efforts with new sectors who have not heavily engaged with the 2015–2020 Plan 	AIPP team	Specific efforts have been made to target new audiences in 2021. These have included the following: GAA, Irish Science Teachers Association, Gaisce, Society of Chartered Surveyors Ireland, Hospitals, NI Housing Executive, Aviation sector, NI Education Authority.
147	Distribute a monthly digital newsletter to the mailing list.	<ul style="list-style-type: none"> Digital newsletter distributed to the mailing list each month 	AIPP team	A digital newsletter has been produced each month in 2021. It is distributed to the AIPP mailing list and made available on https://pollinators.ie/newsletters/
148	Organise an annual AIPP conference.	<ul style="list-style-type: none"> Annual event organised to provide a forum for knowledge sharing and reporting on progress within the Plan Meeting venue to rotate around Provinces 	AIPP team	An online knowledge exchange webinar was held on the 23 rd June 2021. It was aimed specifically at Council Staff. It was hosted by Carlow County Council and attended by 250 participants https://pollinators.ie/councils/councils-webinar-2021/
149	Run an annual programme of engagement around	<ul style="list-style-type: none"> Programme of engagement organised 	All partners	A series of events were carried out to mark World Bee Day: https://pollinators.ie/media/world-bee-day-2021/

	World Bee Day (20 th May).	<ul style="list-style-type: none"> Activities listed on a dedicated page on pollinators.ie. 		<p>The most significant activities in 2021 were:</p> <p>Plean Bee: A TG4 documentary on pollinators and the AIPP was released on the 20th May 2021. It was made by Deaglán Ó Mocháin of Dearcán Media. We thank Deaglán enormously for his support of the AIPP https://dearcanmedia.com/latest-projects/</p> <p>Irish Examiner: World Bee Day 2021 saw a major awareness campaign run in partnership with the Irish Examiner. 200,000 copies of a 40-page booklet on the All-Ireland Pollinator Plan were distributed. It can be accessed as a digital flipbook here: https://pollinators.ie/media/world-bee-day-2021/</p>
150	Run an annual programme of engagement around international Pollinator Week (late June).	<ul style="list-style-type: none"> Programme of engagement organised Activities listed on a dedicated page on pollinators.ie. 	All partners	To mark Pollinator Week 2021 the AIPP focused on encouraging the public to spot pollinator species and to take part in citizen science recording schemes such as Flower-Insect Timed Counts.
151	Recognise the contribution of local pollinator champions.	<ul style="list-style-type: none"> Since 2017, we have recognized a small group of individuals annually (approx. six). This to continue. These are local influencers who make the plan happen on the ground, largely in a voluntary capacity Certificate and personal thanks are sent to new pollinator champions. 	AIPP team	These individuals are recognised each year in December. The 2021 champions will be identified, and personal thanks sent.

		Awardees are not publicised, as these are most often people who do not wish to be personally promoted			
152	Raise awareness of an additional pollinating insect group annually. (The main focus of the All-Ireland Pollinator Plan is on bees.)	<ul style="list-style-type: none"> Social media campaign to raise awareness of one non-bee pollinating insect group annually. May include, but not limited to: hoverflies, nocturnal pollinators, day-flying moths, wasps, beetles 	Butterfly Conservation NI, BugLife, others as appropriate	While other non-bee pollinating insects are regularly promoted on social media, this has not yet been properly formalised. It is planned to promote moths in 2022.	
153	Raise awareness to promote the use of appropriate grass management in preference to planting with wildflower seed and, where this is necessary, the use of native, local provenance wildflower seed.	<ul style="list-style-type: none"> Continued messaging through social media and other online platforms 	AIPP team	<p>This has expanded into a significant action in its own right. The use of 'wildflower' seed mixtures fails to address and even aggravates the real issues of biodiversity loss.</p> <p>To address this going forward, a wildflower seed action group was established in May 2021 with representatives from the National Parks and Wildlife Service, National Biodiversity Data Centre, National Botanic Gardens, Department of Agriculture, Food and the Marine, Teagasc, TCD and UCD.</p> <p>The group are currently drafting an action plan to tackle the issue. It is planned for release in early 2022.</p> <p>A dedicated section has been created on the website to better communicate on this issue: https://pollinators.ie/wildflower-seed/</p>	

Target 6.2 Researching the evidence base for action

Updates under Target 6.2 have been compiled by Prof Jane Stout

NOTE: Research actions are dependent on both funding and availability of appropriate researchers

	Action	Progress measure	Responsibility	Progress by November 2021
	Dissemination and communication			
154	Maintain the Pollinator Research Network to discuss ongoing research, and to build collaborations for future research.	<ul style="list-style-type: none"> Annual Pollinator Research Network meetings held Annual updates of researchers/research projects disseminated via pollinators.ie 	Pollinator Research Network – Trinity College Dublin (TCD), University College Dublin (UCD), Maynooth University (MU), Dublin City University (DCU), National University of Ireland, Galway, and others	<ul style="list-style-type: none"> Annual meeting held virtually in January 2021 (organized by TCD), annual meeting planned in person for January 2022 (organized by UCD). New collaboration on wild honeybees funded via SFI project commencing Dec 2021 (Grace McCormack, NUIG; Julia Jones, UCD; Jane Stout, TCD; Roslin Institute, Edinburgh). Collaborations also established with Broughton & Blenheim estates in the UK around wild honeybee nests.
155	Maintain bee health research-policy-practice dialogue.	<ul style="list-style-type: none"> Annual Bee Health meetings between researchers, decision-makers, and practitioners. 	MU, TCD, DAFM, Teagasc, AFBI, DAERA	<ul style="list-style-type: none"> Due to Covid-19 issues, the annual Bee Health meeting was not held in 2021. A Bee Health Meeting will be arranged for spring 2022
	Pollinator and pollination ecology			
156	Expand knowledge of Ireland's wild bee populations.	<ul style="list-style-type: none"> Research into genetic differentiation/distinction among populations at different scales, linking with ecological/behavioral differences 	Researchers	<ul style="list-style-type: none"> Research ongoing into genetic differentiation of <i>Bombus terrestris</i> (Irish, British, commercial) (Sarah Larragy & Jim Carolan, MU; Jane Stout, TCD) Research ongoing into cavity nesting bee preferences (Simon Hodge, UCD; Steph Maher, Teagasc; Jane Stout, TCD)

		<ul style="list-style-type: none"> • Research into nesting and floral requirements of solitary bee species • Continue to investigate the prevalence, health and longevity of honeybee colonies that exist in the wild. 		<ul style="list-style-type: none"> • Genomic work commenced on wild honeybee population. 100 colonies processed with pool seq approach to end Nov 2021 (Grace McCormack, NUIG) • New SFI funded project commencing Dec 2021 to study diversity and adaptation in Irish wild honeybee population (Grace McCormack, NUIG).
157	Improve understanding of hoverfly populations.	<ul style="list-style-type: none"> • Research into hoverfly abundance/diversity across different land uses, microhabitat use, and/or service provision (bio-control, pollination, nutrient cycling). 	Researchers	<ul style="list-style-type: none"> • Research into hoverfly species richness in relation to floral richness in linear features published (Karzan Ahmed, NUIG, & Farm Ecos team) https://onlinelibrary.wiley.com/doi/10.1111/icad.12455 • Research into hoverfly abundance and richness in relation to farmland feature quantity and quality ongoing (Steph Maher, Teagasc; Jane Stout, TCD; Simon Hodge, UCD; Farm Ecos team) • Research into hoverfly diversity in semi-natural grasslands published (Michelle Larkin, NUIG/NBDC; Dara Stanley, UCD) https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/1365-2664.13990 • Research into hoverfly diversity in crop fields and contributions to pollination services ongoing (Katherine Burns, Arrian Karbassioon, Alison O'Reilly, Dara Stanley, UCD)

158	Improve knowledge of rare and at-risk pollinators.	<ul style="list-style-type: none"> • Research to inform conservation of extinction-risk species in the Irish context • Provide evidence base for conservation of specialized habitats in which rare/at-risk species live. 	Researchers, NIE	<ul style="list-style-type: none"> • Research into <i>Bombus distinguendus</i> ecology published (Niamh Phelan, Dara Stanley, UCD) https://link.springer.com/article/10.1007/s10841-021-00299-7 • Research into <i>Bombus sylvarum</i> ecology and habitat preference ongoing (Michelle Larkin, NUIG/NBDC; Dara Stanley, UCD)
159	Expand knowledge of urban pollinators.	<ul style="list-style-type: none"> • Research to determine impacts of street lighting on pollinators and pollination service • Research to determine value of urban greening to pollinator populations. 	Researchers	<ul style="list-style-type: none"> • Not yet advanced. The Chartered Institute of Ecology and Environmental Management (CIEEM) are an AIPP supporting organisation. They have committed to running an annual event where they consider how their members can undertake actions to protect pollinators. They organised a webinar on the 8th December 2021 on the importance of Nocturnal Pollinators and actions that can be considered to protect them.
160	Expand knowledge of plant-pollinator interactions and dynamics, and pollination service delivery.	<ul style="list-style-type: none"> • Continue research into farmland pollinators, how they respond to changes in floral availability within and between seasons 	Researchers	<ul style="list-style-type: none"> • Research into temporal changes of pollinator communities in mass-flowering crops published (Irene Bottero, Jane Stout, TCD; Simon Hodge, UCD) https://pollinationecology.org/index.php/jpe/article/view/628

		<ul style="list-style-type: none"> • Research linking changes in pollinator communities with ecosystem function and service provision in wild plant species. 		
161	Expand understanding of interactions between managed and wild pollinators.	<ul style="list-style-type: none"> • Investigate optimal placement of honeybee apiaries – how do honeybee hives affect availability of floral resources for other pollinators and how many hives should be located in different habitat types (e.g., forests, urban areas, farmed landscapes). 	Researchers, Beekeepers	<ul style="list-style-type: none"> • Research into how placement of honeybee hives in heathland habitats in the Dublin mountains affects wild bumblebees ongoing (Katie Burns and Dara Stanley, UCD)
162	Expand knowledge of bee diseases and health risks.	<ul style="list-style-type: none"> • Generate baselines of disease prevalence in honeybees and investigate potential for disease transfer 	Researchers, DAFM, AFBI, DAERA	<ul style="list-style-type: none"> • SFI funded project at NUIG commencing in Dec 2021 will investigate factors impacting wild and managed colonies from the same location in collaboration with Stout lab (TCD), Jones lab (UCD), including disease.

		<ul style="list-style-type: none"> • Determine whether promotion of managed honeybee colonies in the wild poses a disease risk to wild pollinators • Undertake new research into Chalkbrood disease in honeybees. 		
Drivers of decline and conservation measures				
163	Understand extent of exposure to pesticides and other pollutants across ecosystems.	<ul style="list-style-type: none"> • Determine exposure routes for multiple pesticides/pollutants and pollinator taxa • Quantify pesticide residues in plants, soil, water, bee products • Improve understanding of impacts of environmental pollution, e.g. heavy metals on bee health and bee products. 	Researchers, DAFM	<ul style="list-style-type: none"> • Ongoing work to determine pesticide residues in plants and soils (PROTECTS project – TCD, DCU) – method for soil quantification published (Mathavan Vickneswaran, Blanaid White, DCU, Jim Carolan, MU) https://pubs.rsc.org/en/content/articlelanding/2021/AY/D1AY01248G • SFI funded project at NUIG commencing in Dec 2021 will investigate factors impacting wild and managed colonies from the same location in collaboration with Stout lab (TCD), Jones lab (UCD), including pesticide levels in colonies.

164	Research impacts of climate change and climate action policies on pollinators.	<ul style="list-style-type: none"> • Research into how climate change affects pollinators • Research into how policies to tackle climate change affect pollinators. 	Researchers	<ul style="list-style-type: none"> • Ongoing research into how weather affects pollinator activity, and creating a bee thermoregulation model to predict future responses to changing temperature (Arrian Karbassioon, Sarah MacQueen, Dara Stanley UCD)
165	Assess effectiveness of conservation measures.	<ul style="list-style-type: none"> • Research effectiveness of conservation actions for pollinator populations and communities • Develop a simple tool to assess quality of conservation actions (e.g. meadows, parks, designated sites, no-mow lawns, Buglife's B-lines) in terms of provision of floral resources 	Researchers	<ul style="list-style-type: none"> • MSc completed comparing planted and annual mow meadows (Emma King, TCD) • MSc (Res) ongoing with Kildare Co. Co. (Sophia Couchman & Jim Carolan, MU, Jane Stout TCD, Una Fitzpatrick NBDC) to investigate non-chemical control methods for invasive/noxious plants and weeds on open public lands.
166	Determine effectiveness of Pollinator Trail sites	<ul style="list-style-type: none"> • Research to monitor the network of Pollinator Trail sites to specifically assess the impact of different pollinator actions 	Researchers	Cannot be advanced until the trail is established (Action 32)

		versus control sites		
167	Investigate the role of specific plants in supporting pollinators to determine best ones to plant for bees in different habitat types.	<ul style="list-style-type: none"> • Research into role of trees to inform tree-planting initiatives • Research into replacements for invasive plants used by beekeepers to provide forage for honeybees (e.g. Himalayan Balsam) 	Researchers	Not yet advanced
168	Review publicly managed land in terms of suitability for key pollinator populations.	<ul style="list-style-type: none"> • Conduct review • Develop a plan to prioritise the restoration of pollinator habitat, based on those areas that will yield the greatest expected net benefits 	Researchers, National Biodiversity Data Centre	Not yet advanced
Multiple benefits and widening engagement				
169	Research multiple co-benefits of pollinator conservation for other elements of	<ul style="list-style-type: none"> • Research into co-benefits of pollinator conservation actions 	Researchers	<ul style="list-style-type: none"> • Research into whether agri-environment schemes where biodiversity is assessed using plants are also useful for pollinators (i.e. co-benefits) published (Michelle Larkin, NUIG/NBDC; Dara Stanley, UCD)

	biodiversity and ecosystem service delivery.			https://besjournals.onlinelibrary.wiley.com/doi/full/10.1111/1365-2664.13990
170	Expand understanding of why people engage with pollinator conservation and how to reach those who are not yet engaging.	<ul style="list-style-type: none"> • Cross-disciplinary research into engagement with pollinator conservation action. To include studies of behaviour change, attitudes, perceptions, etc. 	Researchers	<ul style="list-style-type: none"> • Research on public engagement published (Katie Burns and Dara Stanley, UCD; Una Fitzpatrick, NBDC) https://www.sciencedirect.com/science/article/pii/S1617138121000467 • MSc research project completed (Lizzie Elli, Steph Maher, Jane Stout, TCD)
171	Test methods for non-lethal monitoring across habitats.	<ul style="list-style-type: none"> • Pilot studies and ground truthing of novel non-lethal monitoring technology, compatible with European Pollinator Monitoring Scheme 	Researchers, DAFM, National Biodiversity Data Centre	<ul style="list-style-type: none"> • No progress on main objective, but MSc completed looking at factors that affect FIT counts (Neil Mahon, Simon Hodge, UCD). • The National Biodiversity Data Centre will run a non-lethal moth sampling project on EIP farms in 2022 (funded by DAFM).

Target 6.3 Establishment and maintenance of supporting databases

	Action	Progress measure	Responsibility	Progress by November 2021
172	Continue to manage and maintain the online mapping system <i>Actions for Pollinators</i> , where all those who have taken pollinator-friendly actions can log their location and the action(s) taken.	<ul style="list-style-type: none"> • Manage and maintain the GIS based mapping system • Open it up to all sectors • Improve reporting by increasing the number of sites logged • Where funding is available, work to expand the functionality of the system • Use this emerging map of pollinator-friendly habitat to direct future actions to the most appropriate areas 	National Biodiversity Data Centre	<p>As of the end of November 2021, 2,426 sites are logged on 'Actions for Pollinators'. Just over 6,600 individual actions have been logged. The most popular action is pollinator-friendly planting (1,348), followed by reducing mowing (1,000) and reduced pesticide use (994)</p> <p>https://pollinators.biodiversityireland.ie/</p> <p>The system was significantly enhanced by the National Biodiversity Data Centre in 2021. This included adding new functionality and making it more compatible with other GIS systems.</p>
173	Maintain data on wild pollinator distribution and make available through an online Atlas of Irish pollinators and the NBN Atlas for Northern Ireland.	<ul style="list-style-type: none"> • Maintain and manage databases. Ensure that as much data is open access as possible • Make available through online Atlases of wild bees and hoverflies • Increase the number of active recorders who can accurately identify pollinator species • Where funding is available, continue to develop and publish online identification courses for pollinator identification 	National Biodiversity Data Centre; CEDaR	<p>As of the end of November 2021, the National Bee Database, managed by the National Biodiversity Data Centre contains 80,293 validated records. It is fully open access:</p> <p>https://maps.biodiversityireland.ie/Dataset/5</p> <p>As of the end of November 2021, the National Hoverfly Database, managed by the National Biodiversity Data Centre contains 38,021 validated records. It is fully open access:</p> <p>https://maps.biodiversityireland.ie/Dataset/159</p> <p>The number of active recorders continues to increase across both datasets.</p>

				The National Biodiversity Data Centre currently has free online identification courses for bumblebees and butterflies: https://biodiversityireland.ie/training-resources/
174	Maintain and grow Citizen Science pollinator monitoring networks and databases.	<ul style="list-style-type: none"> • Continue to support and grow the All-Ireland Bumblebee Monitoring Scheme (expert volunteer Citizen Science scheme) • Continue to support and grow the Flower-Insect Timed Count monitoring scheme (general public Citizen Science scheme) 	National Biodiversity Data Centre	Both the All-Ireland Bumblebee Monitoring Scheme and the Flower-Insect Timed Count Scheme were fully supported in 2021.
175	Maintain a database on plant-pollinator interactions.	<ul style="list-style-type: none"> • Maintain database • Add new data as it becomes available 	National Biodiversity Data Centre	This database continues to be maintained within the National Biodiversity Data Centre. It is updated quarterly in line with bee data validation within the Centre. Currently, there are in the region of 15,000 pollinator species records that also include foraging information.
176	Maintain an online database of Irish Pollinator research.	<ul style="list-style-type: none"> • Establish and populate database • Make available via www.pollinators.ie • Update annually 	Pollinator Research Network	This is available at https://pollinators.ie/research/ It is updated annually in November. Recent published research on Irish pollinators is listed. This has been updated for 2021: https://pollinators.ie/research/publications/
177	Develop a digital database of pollinator collections in the National	<ul style="list-style-type: none"> • Investigate funding mechanisms that would allow the national bee collection to be fully curated by the Natural History Museum. This should 	National Museum of Ireland (Natural History)	A preliminary survey conducted by the NMI entomology curator has estimated that there are approx. 25,000 Irish bee specimens in the Natural History collection.

	Museum of Ireland (Natural History).	include image, accession number, specimen - all digitally linked and searchable		Suitable imaging systems have been identified and costed and can be readily purchased pending identification of an appropriate funding source. Protocols for efficient collation of geographic and temporal information from historical Museum specimens have been developed and published in the scientific literature.
178	Collate and maintain data on scientific engagement polls/surveys, so that the initiative can continue to learn from this feedback.	<ul style="list-style-type: none"> • Maintain a database of the findings of all engagement polls since the AIPP began in 2015. Some of these were run by the Plan itself through social media, others by third parties • Use this information to improve engagement with all stakeholders 	AIPP team	This database is maintained with the National Biodiversity Data Centre and is used to improve our understanding on how to best engage with stakeholders.

Target 6.4 Maintenance of a network of supporting organisations

	Action	Progress measure	Responsibility	Progress by November 2021
179	Maintain a network of organisations who agree to help promote or otherwise assist the All-Ireland Pollinator Plan.	<ul style="list-style-type: none"> • Create a framework, whereby organisations can sign up as a supporter of the Plan and indicate what actions they are willing to take in support • Maintain a list of all supporting organisations on the website 	AIPP team	<p>A list of all supporting organisations is maintained at: https://pollinators.ie/partners/supporters/</p> <p>As of the end of November 2021, there are 40 supporters of the AIPP 2021-2025</p> <p>In coming years, as the network grows, we will facilitate knowledge exchange between this group where possible.</p>

		<ul style="list-style-type: none"> • Maintain this network of supporting organisations and provide support as resources allow • Facilitate knowledge exchange where possible • Provide supporters with an opportunity to report on their activities each year as part of the annual review process 		These supporters will be given the opportunity to report on their activities as part of the annual review process from 2022.	
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Target 6.5 Overall coordination

	Action	Progress measure	Responsibility	Progress by November 2021	
180	Promote the Plan to new organisations and sectors as relevant.	<ul style="list-style-type: none"> • Plan promoted to new organisations and sectors • Increase in the number of organisations supporting the Plan • As appropriate, continue to explore possibilities to grow the reach of the Plan e.g. investigations into whether the planning process could include stipulations for pollinators 	AIPP Project Manager and Steering Group	<p>This continues to occur where possible. Significant efforts have been made in 2021 to engage with new organisations and sectors (Action 146).</p> <p>The number of supporting organisations continues to increase.</p>	
181	Ensure that the Pollinator Plan is compatible with other biodiversity initiatives.	<ul style="list-style-type: none"> • Liaise with other partners to ensure land management advice for promoting biodiversity is joined up and is not contradictory 	AIPP Project Manager and Steering Group	Oversight is continually maintained on this action.	

182	Ensure the incorporation of the Pollinator Plan into future relevant national strategies, where appropriate.	<ul style="list-style-type: none"> Promotion of the Plan to relevant organisations and those working on national strategies/planning 	AIPP Project Manager and Steering Group	Oversight is continually maintained on this action.	
183	Develop an online toolkit, based on lessons learned from the AIPP 2015–2020 to ensure knowledge sharing at the EU level and beyond.	<ul style="list-style-type: none"> Develop materials on lessons learned from the first phase of the All-Ireland Pollinator Plan 2015–2020 Make available as an online toolkit for other countries interested in doing something similar Include templates and resources that can be shared 	AIPP Project Manager	<p>This has begun https://pollinators.ie/toolkit/ and will continue to be developed over the coming years.</p> <p>The AIPP continues to engage and provide advice to other countries interested in replicating our activities. In 2021 these have included: Scotland, Wales, England, Sweden, Denmark, Spain.</p>	
184	Publish an overall annual review of the 186 actions in the Plan.	<ul style="list-style-type: none"> Development of a collated annual review, outlining progress on all actions within the Plan Publication of this review on the website each December 	AIPP Project Manager	This document fulfills this action	
185	Annually review the Steering Group.	<ul style="list-style-type: none"> Review the Steering Group annually and restructure as required 	AIPP Steering Group Chair	This is an ongoing process that happens annually. It has been agreed that the size remain constant (max 16 members) but that expertise on the group reflects the key tasks that are being undertaken in any given year. The current Steering Group (2021) is below.	
186	Renew the Plan in 2025.	<ul style="list-style-type: none"> A new version of the Pollinator Plan to be developed for 2026–2030 	Steering Group	Not yet relevant	

All-Ireland Pollinator Plan Steering Group 2021

Member	Affiliation
Dr Úna FitzPatrick (chair)	National Biodiversity Data Centre
Prof Jane Stout (deputy chair)	Trinity College Dublin
Mr Ken Bradley	DAERA; Environmental Policy Division
Ms Pauline Campbell	DAERA; Northern Ireland Environment Agency
Ms Niamh Carmichael	Centre for Environmental Data and Recording (CEDaR)
Ms Rachael Conway*	Butterfly Conservation
Ms Hannah Denniston	Department of Agriculture, Food and the Marine
Ms Eimear Fox	Local Communities, Tidy Towns Adjudicator
Ms Susie Hill	Ulster Beekeepers Association
Dr Catherine Keena	Teagasc
Ms Annette Lynch	National Parks and Wildlife Service
Dr Mary Montaut	Federation of Irish Beekeepers' Associations (FIBKA)
Dr Archie Murchie	Agri-Food and Biosciences NI
Ms Anne Murray	Local Authorities: Dún Laoghaire–Rathdown County Council
Ms Sarah Jane Phelan	Transport Infrastructure Ireland
Ms Melina Quinn	National Trust

* Rachael Conway has moved role within Butterfly Conservation. A replacement will be appointed from within the organisation.



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An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

An Chomhairle Oidhreachta
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