



UNIVERSITY of STRATHCLYDE
CENTRE FOR
ENVIRONMENTAL LAW
AND GOVERNANCE

CLIMATE CHANGE MESSAGE IN A BOTTLE

YOUNG ISLANDERS'
STORIES OF A CARBON
NEUTRAL FUTURE

MARCH 2022



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Executive Summary

Climate Change Message in a Bottle was established at the Strathclyde Centre for Environmental Law and Governance (SCELG) in August 2021, with the aim of bringing messages from young islanders around Scotland and the world to COP26. The project successfully hosted several events during COP26 and produced a feature film of the young islanders' messages.

Taking advantage of COP26's legacy, SCELG were delighted to receive extended funding from the Scottish Government to continue the project in 2022. For Scotland's Year of Stories, young islanders around Scotland have been creating stories and artwork to represent their hopes for a carbon neutral future on their islands.

This report contains a summary and brief description of the young islanders' messages to COP26, followed by an in-depth analysis of their stories of the future in relation to the Scottish Government's National Islands Plan.

From the 140 stories received from islands across Scotland, the top themes mentioned in the young islanders' stories included renewable energy; local food production; active, public and shared transport; waste management and circular economy; and climate friendly transport services.

The young islanders stories provided inspiration for a zine which explores 'a day a carbon neutral island'. This will be distributed across the islands and will provide additional information about the Scottish Government's Carbon Neutral Islands project and funding available for climate-related schemes on islands. Stories and artwork appear in an [online gallery](#) hosted by Youth Scotland.

It is hoped that Climate Change Message in a Bottle's legacy provides inspiration for further initiatives designed to involve young islanders in environmental governance and provide island-centred perspectives on climate change.

Young people have strong and well-informed ideas about the kinds of islands they would like to co-create and inhabit in the future. This report aims to link organisations at all levels with the views of young islanders on climate change and island life.

Climate Change Message in a Bottle in numbers:

- 366 messages to COP26
- 3 COP26 side-events
- 1 interactive map
- 1 film
- 36 schools
- 11 Island Champions
- 22 islands
- 6 countries
- 140 stories
- 98 illustrations
- 2 commissioned artists
- 1 illustrated zine

1



Introduction to Climate Change Message in a Bottle

The perspectives of islanders are often neglected in discussions about climate change, despite the fact that many islands are already dealing with its effects first-hand. In addition, the voices of young people have been central to the climate debate with notable youth activists such as Greta Thunberg and Vanessa Nakate receiving significant media coverage, along with the Fridays for Future school strike movement which began gaining traction in 2018. Therefore, the voices of young islanders deserve a central position in ongoing debates about climate change.

It is against this background that Climate Change Message in a Bottle was founded in August 2021 by the Strathclyde Centre for Environmental Law and Governance (hereafter, SCELG) with the goal of teaching primary school children on islands about climate change and environmental governance before bringing their messages to COP26. Thirty-one school groups were involved in the first phase of the Climate Change Message in a Bottle, which involved pre- and post- COP26 educational workshops. 366 messages were written by young islanders from twenty-four Scottish schools and a further seven international locations including schools in the Solomon Islands, Hawaii, Isle of Wight, Isle of Man, Greece and Greenland. Island Champions liaised with many participating schools and delivered the project locally. With the invaluable support of the project's partners, particularly UistFilm and Island Innovation, three COP26 side events were hosted, bringing the Climate Change Message in a Bottle film to the wider public. An online interactive map, hosted and produced by Island Innovation, was created to showcase messages from young islanders around the world to COP26.

In 2022, SCELG were delighted to receive further funding and support from the Scottish Government which allowed the project to continue into its second phase. 2022 is Scotland's Year of Stories, and in line with this the second phase of the project sought to collect stories from young islanders in Scotland about their hopes for a carbon neutral future on their islands. Fourteen schools participated with pupils from at least twelve islands, and a total of 140 stories and 98 accompanying pieces of artwork were received. These have been showcased in an online gallery, and inspired an illustrated zine which will be distributed throughout youth and community centres on the islands. Additionally, one piece of artwork was selected by public vote to appear on the cover of the Scottish Government's Carbon Neutral Islands project progress report. This will be released in June 2022.

This report showcases the success of the Climate Change Message in a Bottle project and highlights the hopes and suggestions young islanders have for future action on climate change on their islands. It begins with a summary of Phase 1 of the project and the messages sent to COP26 by young islanders. Following this is an in-depth analysis of participating schoolchildren's stories of a sustainable future on their islands. It is hoped that their messages may be considered by local and national organisations when planning for environmental and climate-related initiatives on Scottish islands and beyond.



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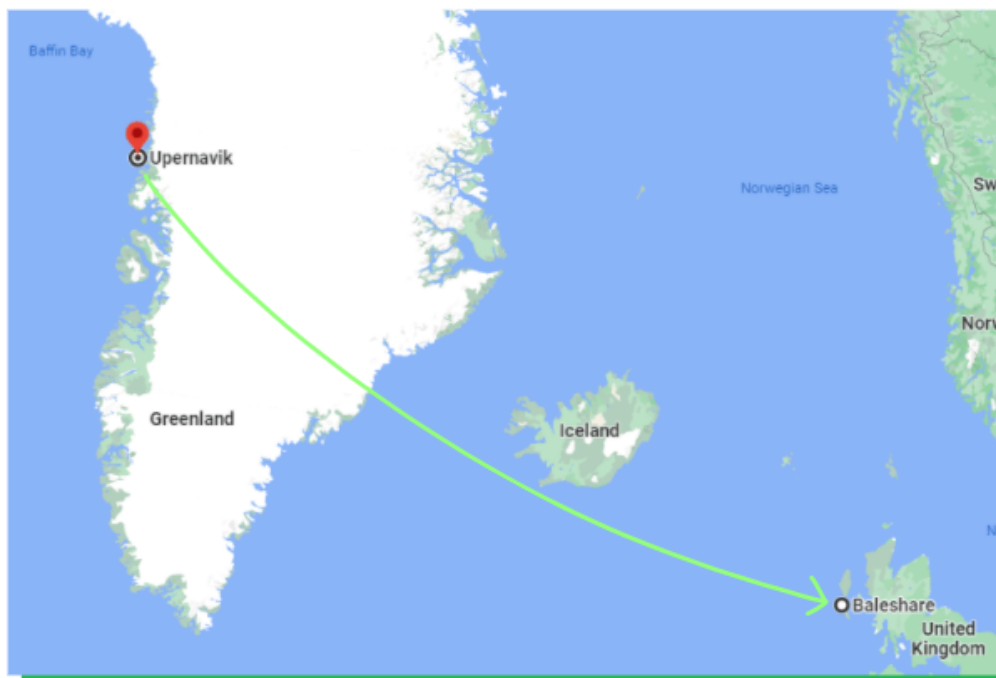
Phase 1: COP26

Climate Change Message in a Bottle Report 2022
University of Strathclyde Centre for Environmental Law and Governance

Climate Change Message in a Bottle's design was contributed to by a wide variety of island-based organisations around Scotland, including Scottish Islands Federation, University of the Highlands and Islands, Highlands and Islands Enterprise, and the Royal Scottish Geographical Society. Most significantly, the project was shaped in collaboration with Taigh Chearsabhagh Museum and Arts Centre, specifically through the input of Andy Mackinnon, director of UistFilm.

In 2006, Andy found a message in a bottle on Baile Sear beach on the Isle of North Uist. In this bottle was a message written by Niels from Upernavik, Greenland, who put the bottle in the ice floe in Baffin Bay in 2004. In his message he wrote about the already melting glaciers of his home, and his fears for the loss of his culture and hunting methods which are deeply interwoven with the arctic environment. Twelve years later, Andy Mackinnon was able to make contact with Niels, and UistFilm hope to develop a documentary to tell this story.

Figure 1. The journey of the message in a bottle which inspired the project.



In the meantime, SCELG had an already established Island Explorers programme which aimed to teach primary school pupils about sustainability and environmental issues through islands. When SCELG director, Francesco Sindico met Andy Mackinnon at UistFilm in the year of COP26, the groundworks were laid for Climate Change Message in a Bottle. Through the project, young islanders learnt about climate change, what it means for islands, and each sent their own 'message in a bottle' to international leaders and attendees at COP26.



Figure 2. Locations of participating schools in Scotland.

With funding and support from the Scottish Government, Climate Change Message in a Bottle officially began in August 2021 with the appointment of project manager, Bethany Walsh. With the assistance of Youth Scotland, seven Island Champions were recruited on different Scottish islands to coordinate the project locally. Two of Island Innovation’s Island Ambassadors also coordinated the project on the Isle of Wight and Hawai’i. Despite COVID-19 restrictions, many schools were able to participate in in-person workshops. For schools that did not have an island champion allocated, teachers were provided with materials directly.

A total of twenty-four Scottish primary schools, five schools internationally, and young people in two Greenland locations participated in the project. Before COP26, workshops introduced participating young islanders to climate science, renewable energy and the challenges of COP26. After this workshop, the children wrote messages to delegates and political leaders at COP26, detailing the kinds of action they would like to see taken on their islands and beyond. Some examples of these can be read below, and further messages can be explored on [Island Innovation’s interactive map](#) of messages. Island Champions and teachers recorded the children reading their messages aloud, and film footage was sent to UistFilm to be collated into the [Climate Change Message in a Bottle film](#) which was shown at various events during COP26. The project was also delighted that Norah Barnes, Island Champion for the Small Isles (Eigg, Muck and Rum), was able to obtain a [video message](#) from celebrity Sting, wishing the children good luck as they wrote their messages.

ISLAND CHAMPIONS



Figure 3. Island Champions who delivered the project in-person on their islands.

At COP26, Climate Change Message in a Bottle had three main events. The first of these was at YOUNGO's COY16, the Conference of Youth during which youth delegates from around the world were able to engage with some of the children's messages and suggest ways in which they could take those messages forward at COP26. Interest from delegates of Small Island Developing States, with whom the young islanders' messages particularly resonated, was noted during the event.

The second event during COP26 was an online event kindly hosted by Island Innovation. Participating schools as well as members of the public were encouraged to join this event, which comprised of the premier full-length screening of the Climate Change Message in a Bottle film, and a Q&A session with experts on island affairs, Francesco Sindico and James Ellsmoor, with schools invited to submit questions in advance. This event was incredibly well received, with over 100 Zoom attendees. To date, the recording of the session has been viewed on Facebook over 300 times, on YouTube over 450 times, and on LinkedIn over 500 times. The event remains available to view on [Island Innovation's YouTube channel](#).



Figure 4. Island Innovation’s interactive map showcases video messages to COP26 from young islanders around Scotland and the world.

Finally, Climate Change Message in a Bottle’s third event at COP26 took place at The Landing Hub, a venue close to the River Clyde in Glasgow which played host to side events during the climate summit. This event was attended by MSP for Na H-Eileanan Iar, Alasdair Allan, and Minister for Children and Young People, MSP Clare Haughey. Both politicians were invited to speak in response to the young islanders’ messages, and their responses were reported back to participating schools at post-COP26 educational workshops. During COP26, the film was also screened several times in Glasgow Science Centre’s Science Show Theatre in the Green Zone.



Important links:

Film trailer: <https://vimeo.com/640112087>

Film: <https://vimeo.com/596591181>

Interactive map:
<https://islandinnovation.co/cop26/message-in-a-bottle/>

Bethany Walsh, project manager, speaking to youth delegates at COY16.

So far, this report has detailed the story of Climate Change Message in a Bottle. However, what is perhaps more important is the content of the children’s messages to COP26, which shed light on young islanders’ experiences of climate change and their concerns for the future.

In total, 366 messages were received from young islanders around Scotland and the world. A thematic analysis of the messages highlighted six major themes. The top theme among these was renewable energy, with 82 messages containing mentions of such solutions to climate change. For example, a primary school pupil from the Isle of Wight said:

“The Isle of Wight will be important because we have lots of water, wind and sun for renewable energy. But if you want this to work you will all have to agree.”

Within this message the pupil also highlights the difficulty delegates face at global climate summits in coming to unanimous agreements, when perspectives and goals of different countries often do not align. This was one of the main learning points of the pre-COP26 school workshops.

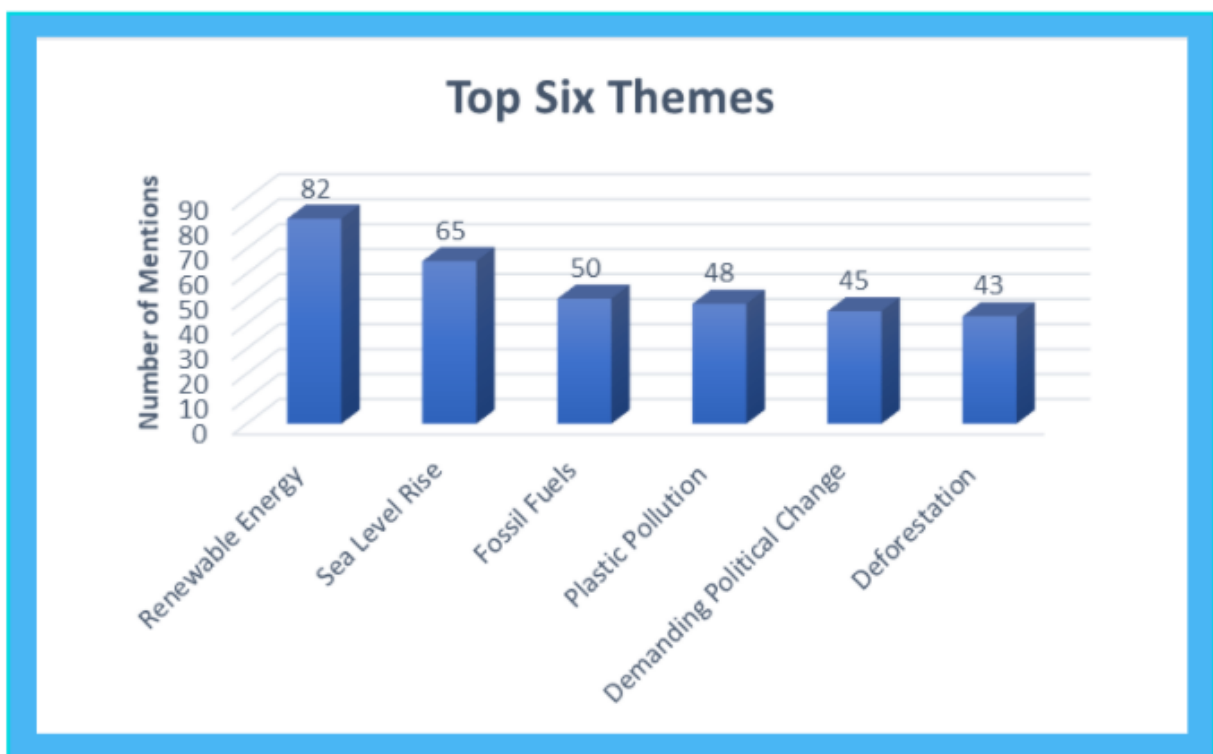


Figure 5. Top 6 themes in the young islanders’ messages to COP26.

The second most abundant theme which appeared in the children’s messages was sea level rise. This sheds light on island-specific fears about climate change. Islands in Scotland and around the world are already losing land and infrastructure to climate change. In Scotland, it is expected that £1.2bn of infrastructure will be at risk of coastal inundation and erosion by 2050. Low lying islands such as Kale Island in the Solomon Islands have already been lost to sea level rise and erosion. Many participating children from islands in Scotland’s Outer Hebrides voiced concerns about the inundation of croft land upon which their families rely. Others were concerned about the loss of unique machair habitat to sea

level rise and expressed emotional connections to the plants and animals for whom it provides habitat. For example, a child from the Isle of South Uist said:

"I am from a small town in South Uist. It is a beautiful place, with kind people and wildflowers throughout the land. The machair and crofts are being ruined. For example, flowers and plants are being eroded by the sea and weather. If this continues, there will be no food for the bees or butterflies. The sea level is rising very fast. This is not good for anyone, but it is especially not good for Uist. There is not a lot of time to do anything, but if you help us we can try and stop this".

Sea level rise was a common theme among messages from all over the world, from islands like Arran in the south of Scotland, to the low lying Orkney Isles, the Solomon Islands, and Astypalea in Greece which is split in two by a small strip of sand. With sea level rise, Astypalea is at risk of becoming two distinct islands.

The third most prominent topic mentioned was fossil fuels. Many questioned the use of fossil fuels, citing that abundant renewable energy potential in the form of wave and wind power lies dormant around islands. Many young islanders called on leaders to implement strict rules against the use of fossil fuels, as a seemingly obvious solution to the climate crisis. For example, a pupil from the Isle of Arran said:

"Why haven't you stopped people burning fossil fuels already, world leaders? I mean you rule the countries".

Others tied the use of fossil fuels to transport, and asked for green travel options such as safe cycle paths, electric cars and more accessible public transport, including this pupil from Brodick Primary School on the Isle of Arran:

"I would also like to see cycle paths around our island which would encourage more people to cycle, instead of using cars ... If we all cycled and walked more we would be making our island cleaner and greener, as cars give out CO₂ which pollutes our island and our earth!"

Many pupils at Iolani School in Hawai'i also mentioned the idea of carbon tax, after having explored different climate solutions using a computer simulation tool. Some of their messages argued in favour of taxing fossil fuels and investing funds in the development of carbon capture technologies.

Plastic pollution was the fourth most frequent theme mentioned, often in relation to ocean litter. Primary pupils on many of the Scottish islands were keen for more beach clean-ups to take place. As part of Climate Change Message in a Bottle, many school groups conducted beach cleans, which may have inspired many children to consider plastic pollution at the beach an important part of climate and environmental protection. Some children were especially concerned about the damage plastic pollution is having on local wildlife and marine creatures, and suggested supplying more accessible recycling bins, signs to discourage people from littering, and increasing fines for those who continue to do so.

The fifth most common theme was demands for politicians to implement change. Many messages asked international leaders to move beyond simply discussing the causes of and solutions to climate change, to implementing concrete and tangible change sooner rather than later. For example, a primary pupil from the Isle of Barra said:

"Dear COP26, I think that you should make more renewable energy sources such as wind turbines. I think you should stop harming the environment and start to help it. The sea levels are rising and our island is being affected and parts will start to submerge. You should stop talking and act now before it's too late".

Another said:

"Dear COP26, for me you haven't been doing enough. I live on Barra and I know that climate change is a problem. By 2050, it'll probably be too late".

It is clear that young islanders understand the urgency of climate change, that solutions exist, and that time is running out to implement them. Rhetorical questions were common, for example:

"Why are people still cutting down trees? What are you going to do to stop them? Why are people still burning fossil fuel? Why won't you stop them? What about all the animals' habitats getting cut down? Again, what are you going to do to stop this?".

Demands for political leaders to implement solutions appeared in 45 messages, highlighting young islanders' dissatisfaction that discussions about climate change do not often appear to lead to significant action.



School pupils in the Solomon Islands with their message to COP26: 'Take action now!'

Finally, the sixth most frequently recurring theme was deforestation. This message came particularly from Patukae School in the Solomon Islands, where many pupils wrote messages such as: *"I want to tell all leaders to stop logging companies cutting more trees on our land"*. Trees not only harbour biodiversity and convert CO₂ from the atmosphere into stored carbon, but they are also important in slowing down floods and preventing soil erosion. Many messages implored the fact that afforestation must be an essential part of climate change solutions. Several posed the theme deforestation as a question: *"Why are people still cutting down trees?"*, while others highlighted the importance of key areas such as the Amazon rainforest. Finally, many expressed fears of extreme forest fires, in that not only are they caused by climate change, but they also cause it to worsen.

After COP26, the project returned to schools for a post-COP26 workshop. This explored the outcomes of the climate summit and what this may mean for island futures. With thanks to the Scottish Government for extended funding and support the project, Climate Change Message in a Bottle continued in 2022 with the aim of encouraging participating students to think creatively about what they want their island futures to be like. This aligned with Scotland's Year of Stories in 2022. The remainder of this report will be an in-depth analysis of island schoolchildren's aspirations for a sustainable, carbon neutral future on their islands, which they expressed through stories and artwork. It is hoped that readers will be able to take the views of these young people forward in island (and mainland) based sustainability initiatives. Young people are the future generations who will inherit the islands, and their perspectives and desires for climate friendly futures should be carefully considered in planning and governance.



3

Phase 2: Scotland's Year of Stories

Climate Change Message in a Bottle Report 2022
University of Strathclyde Centre for Environmental Law and Governance

Stories are integral to the way we conceive of the world and our place in it. Scotland is home to rich oral traditions, especially across Scots and Gaelic cultures. Myths, legends and historical accounts that are passed down through time help us make sense of the present. However, stories and storytelling are also useful ways to make sense of an uncertain future.

In a dramatically changing world, the climate crisis is causing increasing fear of what lies ahead. Islands are particularly vulnerable to climate change, due to varying degrees of remoteness and limited resources, and are already losing large swathes of land to rising sea levels and coastal erosion. This anticipation of loss can cause paralysing fear and distress. Counter to this, stories can also provide reassuring narratives of post-climate change futures. In imagining carbon neutral islands through storytelling, we can foster emotional connections to the future. 2022 is Scotland's Year of Stories, and in the wake of COP26, Climate Change Message in a Bottle returned to schools on Scottish islands to encourage young islanders to claim agency over their carbon neutral futures by imagining what their island might be like in 2040, through storytelling. Young people at fourteen island schools wrote stories of the future, based on the following prompts:

Prompt 1

Imagine yourself as an adult living on your island.
Describe a climate-friendly day in your life.

Prompt 2

Imagine it is the year 2040, and measures have been taken to tackle climate change. What is your island like?

Younger children received a storyboard prompt to assist with the first question. Within their stories of the future, children explored themes such as renewable energy; local food production; active, public and shared transport; diverse job opportunities; and the circular economy. Story themes will be explored below, in relation to the Scottish Government's National Islands Plan's key Strategic Objectives.

Young islanders also created artwork to go with their stories. Artwork and stories were displayed in an online gallery, kindly hosted by Youth Scotland, where members of the public could access their perspectives and insights. Furthermore, one piece of artwork was selected by public vote to appear on the front cover of the Scottish Government's Carbon Neutral Islands project progress report which will be published in June 2022. The winner was Emily, pupil at Kirkwall Grammar School in Orkney. You can see her image below.



Emily, pupil at Kirkwall Grammar School won the artwork competition with 52 out of 335 votes. Her illustration will feature in the Scottish Government's Carbon Neutral Islands progress report, to be released in June 2022.

The Carbon Neutral Islands project at the Scottish Government plans to deliver key targets in the [National Islands Plan](#), a unique piece of legislation in Scotland which acknowledges and plans for the nuanced needs of islands and island communities. The Carbon Neutral Islands project is aiming to support six islands in progressing towards becoming fully carbon neutral by 2040 and will benefit all islands through the sharing of good practises. In summer 2022, the Scottish Government Islands team will publish a progress report on the Carbon Neutral Islands project which will set out the steps the Scottish Government will take to support the islands included in the project as well as how it will benefit all other Scottish islands.

As well as being acknowledged in the Scottish Government's Carbon Neutral Islands progress report, stories also inspired a zine (illustrated booklet) which will be distributed around youth and community centres on the islands. This zine was illustrated and produced by [Melanie Grandidge](#) and [Hannah Riordan](#), two young illustrators based in Edinburgh. You can read more about them below. The sixteen-page, fully illustrated booklet explores 'a day on a carbon neutral Scottish island' in 2040. It will also be available online, featuring GIF (moving image) versions of several of the illustrations. On the back cover of the zine, readers are directed to further information about the Carbon Neutral Islands project, including where possible how to access funding opportunities available for climate-related initiatives on Scottish islands. Therefore, not only do these stories help to inspire readers by making the possibility of a carbon neutral future seem real and attainable, but they also foster tangible change by attempting to link up local communities with the funding that can move them towards such this goal.



I am a freelance illustrator currently based in Edinburgh after graduating in Illustration BA(Hons) from The University of Edinburgh. I spend my spare time drawing on location and painting from direct observation. My favourite medium to work with is watercolour as this complements my expressive mark-making. I love working on children's story ideas and it's my dream to illustrate a picture book one day! I am very excited about this project as it combines both my passion for climate action with visual storytelling.

MELANIE GRANDIDGE

Artist with Climate Change Message in a Bottle



Finally, it is hoped that the young islanders' stories can help to inspire the future agenda of the newly established [Young Islanders Network](#). Delivered by Youth Scotland and funded by the Scottish Government, the Young Islanders Network aims to help young people offer meaningful contributions to the delivery of the National Islands Plan, as well as to benefit from training opportunities and access support to implement changes in their own communities. By participating in Climate Change Message in a Bottle, young islanders have articulated their ambitions for a climate friendly future, and through the Young Islanders Network they can come together to put such plans into action in collaboration with local and national level projects and organisations.



Hello, I'm Hannah. I graduated from Edinburgh College of Art with a degree in Illustration 2020 and have since been working as a freelance illustrator based in London and Edinburgh. I love to experiment with bright colours, patterns, and humour within my work. I primarily work digitally but often draw inspiration from analog-making processes such as printmaking.

HANNAH RIORDAN

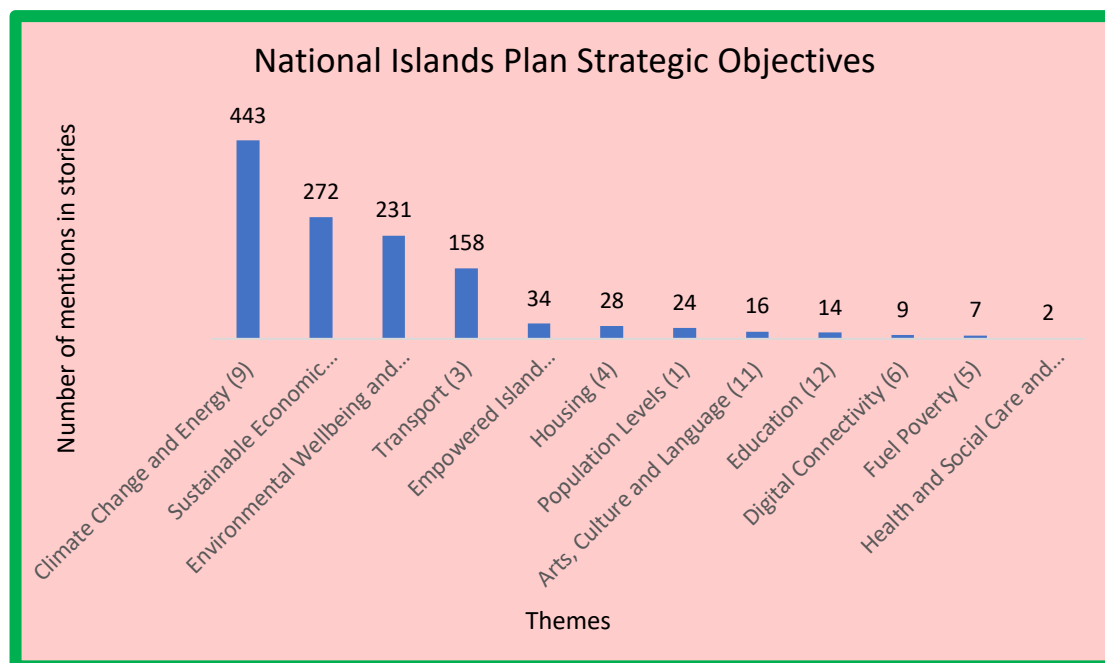
Artist with Climate Change Message in a Bottle



Storytelling has the potential to create space for thinking in new ways and reclaiming a sense of control over the rapidly changing circumstances that climate change brings to islands. By encouraging young islanders to imagine what life might be like in the year 2040, Climate Change Message in a Bottle is helping to close the gap between now and what lies ahead. In thinking through what their lives might be like in the future, participating students can imagine alternate future scenarios, help to generate community engagement, and put themselves in other people's shoes including those of their future selves.

In the remainder of this report, stories written by participating young islanders will be unpacked in relation to several of the National Islands Plan’s key strategic objectives, including Climate Change and Energy, Environmental Wellbeing and Biosecurity, Transport, Population Levels, Sustainable Economic Development, and Housing and Fuel Poverty. These will be key components in the journey to carbon neutrality on Scotland’s islands, and young people have crucial perspectives to offer.

Figure 6. The number of times each Strategic Objective was mentioned in the young islanders’ stories.



A. A Note on the Methodology

In total, Climate Change Message in a Bottle received 140 stories from fourteen schools across twelve islands in February 2022. The content of these stories is analysed in relation to the Scottish Government’s National Islands Plan’s Strategic Objectives, which cover not only climate change and environmental issues affecting islands, but also topics such as education, health and social care, transport, and digital connectivity.

Within each Strategic Objective exists several action points on how the Scottish Government aims to meet such objectives. These action points were drawn from the Plan as themes for analysis within this report. A content analysis of each child’s story was conducted, with each theme that appeared recorded. The frequency of which themes appeared can be seen in Figure 7. Chapters are ordered by the frequency of the Strategic Objectives’ occurrences within the young islanders’ stories, from most to least common.

It is hoped that by using the National Islands Plan’s Strategic Objectives as criteria for analysis, this report will provide the greatest use-value for island-based organisations, businesses, and the public sector. In addition, the children’s hopes for the future can help to inform the direction and strategy of the Young Islanders’ Network, which is being developed by Youth Scotland with the goal of directly involving young islanders in the implementation of the National Islands Plan.

Figure 7. Themes selected for analysis, in order of frequency of mentions in stories. Themes which did not appear are not listed.

Theme	Frequency
Renewable energy (9)	127
Local food production (8, 2)	99
Active, public and shared transport (3)	66
Waste management, circular economy (9)	64
Climate friendly transport services (9, 3)	57
Litter and waste (8)	50
Biodiversity (8)	48
Apprenticeships and job opportunities (2)	47
Expanding forests and woodland (9)	44
Recycling and food waste (9)	36
Energy efficient housing (9, 4)	31
Ending use of fossil fuels (9)	26
Sustainable building materials (other)	21
Sustainable marine activities (2)	19
Adaptation (9)	18
Public sector leadership - varied and sustainable jobs (2)	18
Community-run businesses (2)	17
Reliable, low emission ferries (3)	17
Sustainable land use (2)	17
Water conservation (other)	14
Nurturing creative industries (11)	13
Fishing and aquaculture adaptation (9)	12
Food and drinks industry (2)	12
Reducing need to travel (3)	10
Repopulation (1)	9
Closeness to central government (10)	9
Working with young islanders (1, 12)	8
Nature based solutions (8)	7
Digitally enabled businesses (2, 6)	7
Local democracy (10)	7
Participatory processes (10)	6
Walking and cycling infrastructure (3)	5
Tourism infrastructure to minimise environmental impact (8)	5
Protecting crofting (1)	5
Housing (2, 4)	5
Crofting jobs (2)	5
Women in agriculture (2)	5
Addressing high living costs (4)	5
Increasing range of educational options available (12)	5
Community hubs (other)	5
Flood resilient properties (9)	4
Infrastructure (2)	4
Emergency responses (10)	4

Sustainable economy (9)	3
Diversification (2)	3
Electricity transmission links (9)	2
Forestry (2)	2
Abattoirs (2)	1
Gaelic (1, 2, 10, 11)	1
Delivery schemes (4)	1
Reduce fuel poverty (4)	1
Less seasonal employment (2)	1
Sports facilities (7)	1
Tackling discrimination, harassment and victimisation (7)	1
Investing in cultural and historical resources (11)	1
Equal opportunities in education (12)	1

It is important to note that some overlap exists between many of the Strategic Objectives, and they cannot be considered in isolation from one another. For this reason, the subjectivity of this analysis must be brought to attention. While great care was taken to ensure that stories were scrutinised for recurring themes, it is likely that results would appear differently if another author were to have conducted a similar analysis. Despite this, the results of this report offer important insight into the hopes and visions young people have for their island futures in the year 2040. The Scottish Government’s Carbon Neutral Islands project is aiming to support six islands in becoming carbon neutral by 2040, and the young islanders’ stories provide inspiration and connection to this future, which for them will only be the beginning of their adult lives.

“

I am 24 years old.

Marcel, Sandness Primary School, Shetland

”

“

MONDAY 3RD OCTOBER 2040

I am so glad we all worked so hard in 2021. Our planet and our beautiful island are safe.

Alanna, Eoligarry Primary School, Isle of Barra

”

“

LIVING IN A BRIGHTER WORLD

When I went inside, I took a glimpse back into the past and saw myself sending a message in a bottle far out to sea hoping that someone would get my message, my question for a better future.

Maisie, Sgoil Uibhist a' Tuath, Isle of North Uist

”

“

It's the year 2040, global warming has stopped. I am 31 and the world is a different place.

Alasdair, Tiree High School

”

“

TUESDAY 8TH FEBRUARY 2040

Later that night I was thinking about when I was a child and I always wondered if the planet would be able to produce no carbon emissions except what was needed.

Fraser, Whiting Bay Primary School, Isle of Arran

”

“

LIVING IN A BRIGHTER WORLD

It was 30/3/2030 and I woke up on a crisp blue morning in the Ness in Shetland. So I went out side to feel a lovely summer breeze on my face. I grabbed some raspberry's from my garden and made some toast from flour fresh out of my wheat fields. I had some of my toast with butter from my dairy cows. Because it was the summer I got on my sparkling clean bike and cycled down the dirt road and started to sell my fruit an veg and cycled back to my house.

Pupil, Sound Primary School, Shetland

”

“

A DAY IN 2040

As I woke up and gazed out the window to the newly built wind farm, the majestic blades of the wind turbines slowly spinning almost hypnotizing me. The sun was shining glinting off the roof of my electric car which would be charging as the roof was solar panelled. There was a forest, that had just recently grown into a full forest. The sky was perfect, there were only two tiny clouds surrounded by blue. Not a tiny piece of plastic could be spotted in the sea.

Jack, Sgoil Uibhist a' Tuath, Isle of North Uist

”

B. Analysis of Key National Islands Plan Objectives in Young Islanders' Stories

I. Climate Change and Energy: Strategic Objective 9

Given that Climate Change Message in a Bottle is specifically based around facilitating conversations about climate change on islands, it is not surprising that this theme was the most frequently mentioned in the young islanders' stories. Islands are already facing the worst effects of climate change as they are especially vulnerable to increased storm surges, coastal erosion and water shortages. Such impacts directly affect islanders' abilities to flourish on their islands, as ferries are cancelled more frequently, land is lost, and access to lifeline resources is made precarious. In November 2021, Glasgow hosted COP26 which brought climate change to the forefront of public attention and media coverage. In the wake of this and following on from Climate Change Message in a Bottle's first phase, it is especially helpful for young islanders to consider what their island futures will look like.

Scotland's islands are leading the way when it comes to climate action and renewable energy. For example, Orkney is home to the European Marine Energy Centre which is at the forefront of tidal and wave energy development. Islands such as Eigg are powered by community-owned renewable energy sources. Countless examples of environmental innovation exist which demonstrate our islands' world-leading examples of climate action. Themes within Strategic Objective 9 featured 443 times throughout the young islanders' stories.

Within Strategic Objective 8: Climate Action and Energy, it is stipulated that the Scottish Government will:

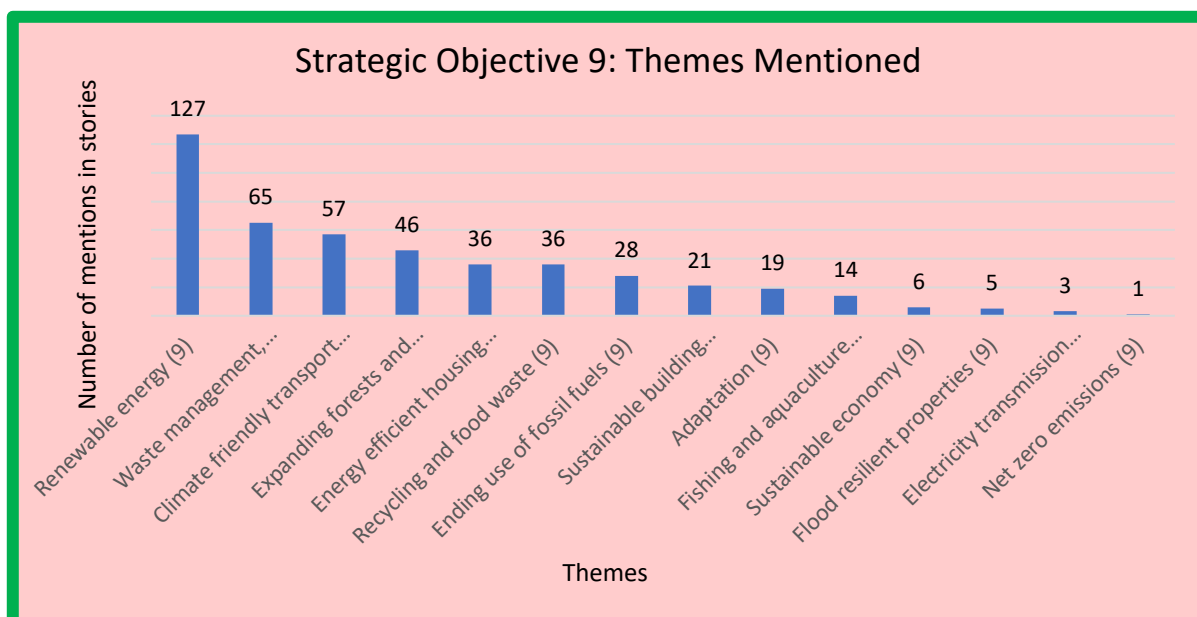
- *Work with island communities to support their climate change aspirations.*
- *Work with island communities to look at alternative solutions to managing waste, particularly in respect of Scotland's Circular Economy Strategy.*
- *Work with local authorities to help them work towards their statutory targets.*

- *Work towards creating net zero emission islands and providing global climate change leadership.*
- *Put in place resilient adaptation plans on islands that are at greater risk from climate change linking these strongly with development plans for those islands.*
- *Work closely with island partners, the network owner and all other key stakeholders to deliver existing proposals for electricity transmission links to mainland Scotland.*
- *Work with Resilience Partnerships and energy providers to encourage them to focus on the resilience of islands' energy supply networks.*
- *Work with transport-related stakeholders to have the most energy-efficient and climate-friendly transport services possible across the islands.*
- *Continue working to unleash the potential of renewable energy as both a way to mitigate climate change as a driver of sustainable and inclusive economic growth.*
- *Work with communities, crofters, farmers and landowners to expand forests and woodlands on the islands, recognising wider land-use objectives.*
- *Put the themes of meeting emissions targets and adapting to the effects of climate change at the heart of the preparation of National Planning Framework 4.*
- *Support the adaptation of Scotland's aquaculture and fishing industry.*
- *Work with a range of stakeholders to develop an action plan to improve resilience to properties at flood risk.*
- *Work with local authorities to strengthen recycling and food waste services in island communities.*
- *Work closely with key stakeholders to ensure that the voices of islanders are fully heard, achieving a just transition to net-zero, and that islands benefit from the many opportunities associated with a green and sustainable economy.*

From these action points, the following key themes were extracted for analysis. Those in italics were not previously mentioned in the National Islands Plan, but were frequently mentioned by young islanders:

- Energy efficient housing
- Flood resilient properties
- Waste management and circular economy
- Net zero emissions
- Expanding forests and woodland
- Adaptation
- Electricity transmission links
- Renewable energy
- Climate friendly transport services
- Sustainable economy
- Recycling and food waste
- Fishing and aquaculture adaptation
- Resilient energy supply networks
- *Ending use of fossil fuels*

Figure 8. Number of mentions of themes within Strategic Objective 9: Climate Change and Energy. Numbers in brackets indicate whether the theme fits into more than one Strategic Objective.



The most popular theme to occur in relation to Strategic Objective 9 was renewable energy. Many young islanders posed this as one of the most important solutions to climate change, and a significant part of how their island would change by 2040. Some described specific sites of renewable energy production, such as to capture the potential of prevailing winds or specific watercourses. Others described modifications to homes, with solar panels on rooves, and ground source heat pumps. Housing modification will be revisited under Strategic Objectives 4 & 5: Housing and Fuel Poverty. Coupled with the increase in renewable energy were hopes for ending the use of fossil fuels, which was often described as a momentous occasion (see quote below from Fraser, Whiting Bay Primary School).

A second significant theme was that of waste management and the circular economy. The young islanders understand that reducing waste, increasing recycling, decreasing consumption, and supporting local production of food and goods are essential parts of climate change solutions. Some pupils spoke of buying and selling second-hand clothing, while others discussed reducing waste in shops and sourcing products like fuelwood, food and clothing locally.

Finally, climate adaptation was a significant theme to arise. While asked to imagine their island after measures have been taken to tackle climate change, the young people understood that certain affects, such as sea level rise, may now be inevitable to an extent. Solutions to this included sea walls, raising houses, and restoring woodland and machair habitats around the coast to protect land from coastal erosion. This will be discussed further under Strategic Objective 8: Environmental Wellbeing and Biosecurity.

“ TUESDAY 8TH FEBRUARY 2040
 Today is the day the Prime Minister will announce that the last fossil fuel plant will shut down in the world, so he made it a holiday for all.
 Fraser, Whiting Bay Primary School, Isle of Arran ”

“ MESSAGE IN A BOTTLE
 We will have wind turbines on the hills on the south of the island and offshore wind turbines to generate power from the south west prevailing winds.
 Annie and Imogen, Arran High School, Isle of Arran ”

“

CLIMATE CHANGE

The world has changed so much in the past few years. The beaches are beautiful because the tides aren't taking away the land. In 2020 nobody seemed to care about climate change, but everyone started trying to stop climate change in the years that followed. People would grow their own food, so that climate change wouldn't come back. People learnt it was good to support local businesses

Ella, Sgoil Uibhist a Tuath, Isle of North Uist

”

“

OUR ISLAND IN 2040

Now our island looks really different. We have a harbour wall to protect us from storm surges. Lots of people grow food in their gardens. Some have solar panels, wind turbines and a few of them are powered by hydro electric.

Izzy and Toren, Whiting Bay Primary School, Isle of Arran

”

“

Domhnall, Castlebay Primary School, Isle of Barra

Tha Barraigh diofraichte a-nis seach gu bheil fada a bharrachd chraobhan ann, tha ballachan dìonach air feadh Bharraigh airson a' mhuir a chumail air falbh bho na togalaichean agus tha càr agus baidhsagal dealain aig a h-uile duine air an eilean.

Barra is different now because there are many more trees on the island and there are sea defence walls to keep the sea away from our homes. Everyone uses an electric car or bike.

”

“

LIFE IN 2040

Every car is electric and companies like Shell have gone out of business.

Alasdair, Tiree High School

”

“

DEAR DIARY

When I wake up, I will go for a warm shower that is heated from wood that is from Eigg. After that, I eat porridge made from oats that are grown on Eigg.

Freya, Eigg Primary School, Isle of Eigg

”

II. Sustainable Economic Development: Strategic Objective 2

Strategic Objective 2: Sustainable Economic Development refers to the support of businesses, job creation and other sustainable income opportunities on Scottish islands. Particularly, it is noted that creative industries and Gaelic heritage play an important role in island economies and cultures. Sustainable economic development must minimise the environmental impact of the tourism industry and ensure that fair and well-paid work opportunities are available across all islands. Local food production, and food and drinks industries will also be important to future economic development on islands. Sustainable Economic Development overlaps with many aspects of the National Islands Plan, including Population, Transport, Climate Change, and Education. This objective was one of the most frequently referred to in the young islanders' stories, appearing a total of 272 times.

Within Strategic Objective 2: Sustainable Economic Development, it is stipulated that the Scottish Government will:

- *Identify key actions to drive inclusive and sustainable economic growth on islands, such as community-run businesses, e-commerce and digitally enabled island-based businesses.*
- *Explore how best to ensure the needs of islands are met within emerging regional economic partnerships including the Convention of the Highlands and Islands (COHI).*
- *Tailor business and community support for island communities to ensure products and services are fit for purpose, accessible and effective. This will include exploring new and innovative models and working with national providers to consider how programmes can better address the needs of island communities and businesses.*
- *Work in partnership to support strategic projects which deliver sustainable economic growth in the islands, e.g., Orkney Research and Innovation Campus and Stornoway port developments.*
- *Drive the many socio-economic opportunities arising from the 2019 Science and Innovation Audit report "Maximising Opportunities for the Marine Economy in the Highlands and Islands" as well as enhance those arising from growth deals.*
- *Display leadership in the public sector by demonstrating that jobs and careers can be successful on islands.*
- *Promote a thriving business environment that allows individuals to pursue a wide range of economic opportunities on islands.*
- *Create and promote apprenticeships and job opportunities for young islanders.*
- *Ensure that skills provision is agile and responsive to future demand and enables individuals to take up opportunities.*
- *Build on Scotland's National Marine Plan to ensure that fishing and other economic activities stemming from the sea provide increased opportunities for island communities, but at the same time that they are pursued in a sustainable manner.*
- *Ensure that sustainable land use including agriculture and forestry continues to provide jobs and opportunities to island communities.*
- *Work with relevant partners and stakeholders to make tourism more sustainable and less seasonal, and encourage development of a year-round offer across a wider range of islands that delivers economic, environmental and social benefits.*
- *Ensure that crofting continues to provide jobs and opportunities to island communities.*

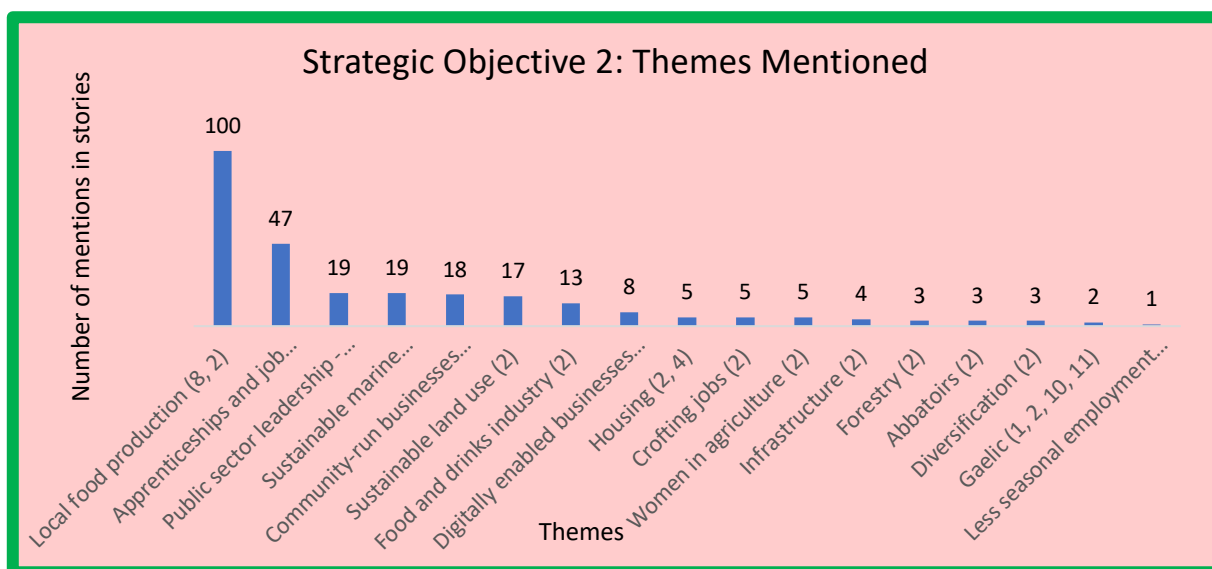
- *Deliver the Islands Passport initiative, which will promote the opportunity to visit a wider range of Scotland's inhabited islands, encouraging visitors throughout all seasons and by public transport, thereby delivering economic opportunities for island communities.*
- *Work with the food and drink industry to leverage its economic potential and explore options for sharing some of its benefits with island communities.*
- *Seek to expand the range of economic, social and environmental benefits that island communities derive from forestry.*
- *Review Scotland's National Planning Framework to ensure sufficient flexibility for island interests, including how to best meet housing need.*
- *Reflect the National Islands Plan and relevant regional perspectives in the review of the National Planning Framework and preparation of National Planning Framework 4.*
- *During the preparation of the 2020 Infrastructure Investment Plan, consider the implications of the National Islands Plan on future infrastructure requirements.*
- *Recognising the services that island abattoirs provide to their communities, we will work with relevant partners to deliver sustainable and economical viable operations.*
- *Ensure that legislation and policy relating to early learning and childcare is appropriately island-proofed.*
- *Ensure that opportunities to develop the wellbeing of the Gaelic language and increase the number of speakers and users are considered as part of sustainable economic development.*
- *Support women in agriculture on Scottish islands to succeed, including encouraging their participation in the leadership development programme, addressing unconscious bias by organisations and businesses and breaking down cultural barriers.*
- *Work with relevant local authorities to develop regional food and drink action plans to support growth of the sector on islands, including a focus on the vital Whisky sector.*
- *Work with relevant local authorities to encourage take up of Food for Life accreditation to help stimulate local sourcing in public sector settings.*

From these action points, the following key themes were extracted for analysis:

- Local food production
- Gaelic
- Forestry
- Meeting island needs
- Abattoirs
- Strategic projects (e.g., education, ports)
- Public sector leadership – varied and sustainable jobs
- Diversification
- Apprenticeships and job opportunities
- Skills provision
- Housing
- Infrastructure
- Sustainable marine activities
- Childcare provision
- Sustainable land use
- Less seasonal employment

- Crofting jobs
- Food and drinks industry
- Women in agriculture
- New partnerships
- Community-run businesses
- Digitally enabled businesses

Figure 9. Number of mentions of themes within Strategic Objective 2: Sustainable Economic Development. Numbers in brackets indicate whether the theme fits into more than one Strategic Objective.



One of the most abundant themes to appear overall is that of local food production. Young islanders posed that not only does local food production reduce emissions, but it benefits island economies, and can be the most environmentally-friendly way to source produce. On many islands, local meat has to be taken to the mainland for slaughter, but several young islanders suggested the establishment of local abattoirs to reduce transport emissions. A large number of participants suggested that every islander should have the opportunity to grow food in their own gardens, polytunnels and crofts, in addition to larger scale agricultural production.

Other popular themes here were apprenticeships and job opportunities, and leadership in creating and sustaining varied roles in the public sector. Children were encouraged to think of what their job might be in 2040. Their ideas were widely varied, and participants suggested they would have jobs such as builders, teachers, doctors, environmental lawyers, game designers, marine biologists, photographers, farmers, fishers and artists, among others. This breadth of opportunities young islanders seek in the job market go beyond the highly seasonal, tourism- and agriculture-based jobs which many islands are known by. It highlights that there is potential for a wide variety of roles to be filled on islands, should more opportunities become available. Currently, many young islanders move off-island in search of career opportunities and skills development. If a wider variety of public, private and third-sector jobs were made available and desirable to young people on islands, sustainable economic development could contribute to reducing island depopulation.

“

WHAT WOULD THE ISLE OF
ARRAN LOOK LIKE IN 2040?

Our food comes from local farms, which is freshly produced with no added chemicals. Our meat comes from local butchers and farmers from around the island.

Julietta, Whiting Bay Primary School, Isle of Arran

”

“

MY ECO-FRIENDLY LIFE

After breakfast I head to work, I work as a lawyer. ... I spend a lot of my time working hard to make sure companies that use a lot of fossil fuels are taken to court and penalised for their terrible actions.

Rowan, Castlebay Primary School, Isle of Barra

”

“

When I grow up I will work as a vet. We look after animals.

Mya, Lochdonhead Primary School, Isle of Mull

”

“

A LIFE IN SHETLAND 2040

I get my electric tractor started. Then I do some contracting. I go back to the farm and put my tractor back in the shed.

Brydon, Sandness Primary School, Shetland

”

“ MY CLIMATE FRIENDLY LIFE ON ISLAY

All the food I eat I grow in my small croft such as potatoes, carrots, apples and soft fruits. I water them with a sprinkler that is solar powered ... The local farmer next to me has a smallholding where I can purchase products such as meat and other fruit and veg.

William, Port Ellen Primary School, Isle of Islay ”

“ SANDNESS 2040

I get to work by walking to my office and start my eco-friendly job. My job is game designing. I like it because I have an eco-friendly computer.

Erin, Sandness Primary School, Shetland ”

“ THE FUTURE OF THE ISLE OF TIREE

They even made beach cleaner a full-time job that pays well.

Max, Tiree High School, Isle of Tiree ”

“ A CLIMATE FRIENDLY DAY IN MY LIFE

My job is a fisherman so I catch crabs, lobsters and fish. I sell them to people on the island or I just give it to them away so nothing goes to waste. I sell them on the island so that less food is being transported to our island. I get to the pier by bike, walking or sometimes I use the new electrical bus.

Lewis, Castlebay Primary School, Isle of Barra ”

III. Environmental Wellbeing and Biosecurity: Strategic Objective 8

Strategic Objective 8 refers to the protection and restoration of island ecosystems and their services, both on and around islands. These ecosystems attract tourists, host industries such as agriculture, aquaculture and fisheries, and also provide inspiration and context for rich cultural heritage. Healthy environments provide mental health benefits for island inhabitants and those who visit seeking peace and tranquillity. However, environmental wellbeing on Scotland's islands is affected by issues such as inadequate waste disposal, invasive species and degraded marine habitats. Themes within Strategic Objective 8 featured 231 times throughout the young islanders' stories.

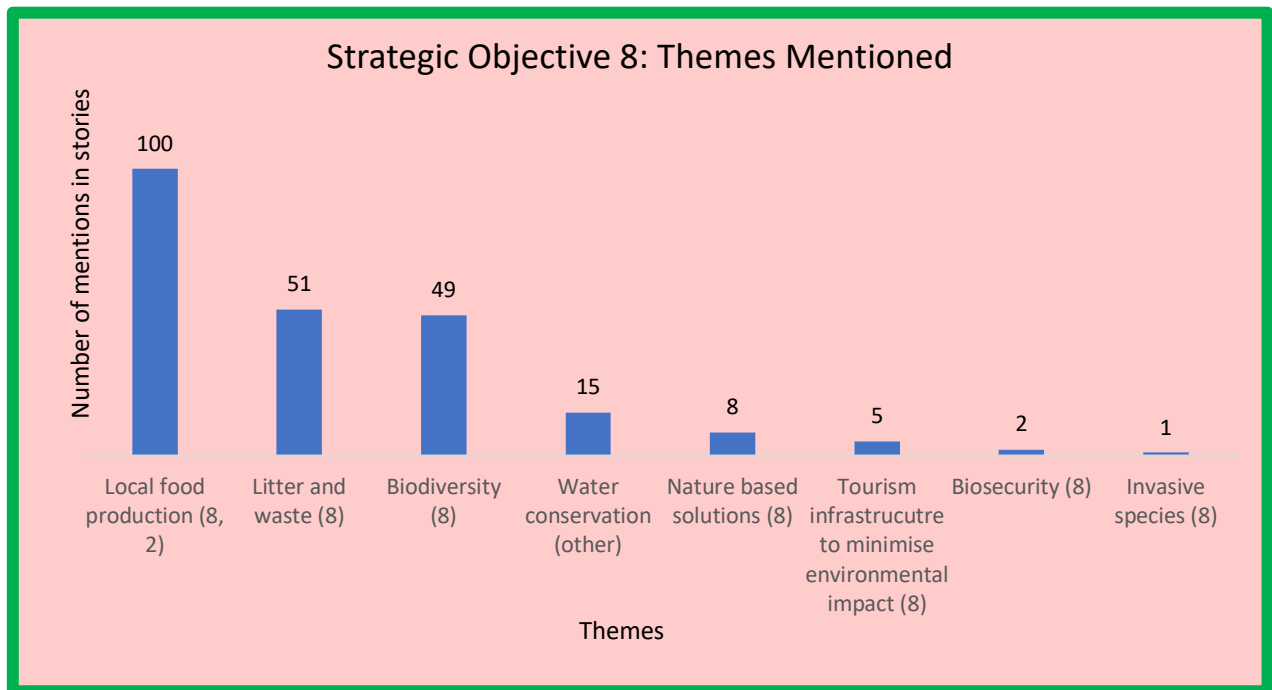
Within Strategic Objective 8: Environmental Wellbeing and Biosecurity, it is stipulated that the Scottish Government will:

- *Protect island biodiversity.*
- *Address biosecurity in a holistic and integrated manner as a means not only to contribute to environmental wellbeing, but also to contribute to sustainable economic development on Scottish islands.*
- *Establish an islands forum, through Zero Waste Scotland, as part of the implementation of the Deposit Return Scheme, to ensure that key considerations for islands (and rural communities more generally) are reflected. This Forum will support, not only, input into our legislative plans for the scheme but also ensure that key considerations for island communities are integrated into the implementation planning process.*
- *Work with island communities to explore how they can contribute to the circular economy through small-scale pilots for example supporting local food production.*
- *Continue and refresh the Rural Tourism Infrastructure Fund, which has benefited island communities through provision of infrastructure to mitigate the impact of increased tourism benefitting islands' communities and environment.*
- *Develop work with the Scottish Biodiversity Strategy's Non-Native Species Action Group to increase public information around minimising particularly high-risk invasive species movements on islands.*
- *Work with island partners to design solutions that address climate change through nature based solutions with multiple benefits including, for example the protection and restoration of peatlands and salt marshes.*

From these action points, the following key themes were extracted for analysis. Those in italics were not previously mentioned in the National Islands Plan, but were frequently mentioned by young islanders:

- Biosecurity
- Biodiversity
- Invasive species
- Litter and waste
- Local food production
- Tourism infrastructure to minimise environmental impact
- Nature based solutions
- *Water conservation*

Figure 10. Number of mentions of themes within Strategic Objective 8: Environmental Wellbeing and Biosecurity. Numbers in brackets indicate whether the theme fits into more than one Strategic Objective.



Much of the young islanders’ imagined futures that relate to Strategic Objective 8 highlight their sense of place-attachment and a love of unique local wildlife and habitats. Many wrote of an increase in biodiversity, and wanting to protect its environment, such as Rowan from Barra who said: *"This is our island and we will protect it and the wildlife that lives on it today and in the future."* Tied to this is the reduction of litter and waste, and several proposed regular community beach cleans which also links to Strategic Objective 10 and the empowerment of communities to claim responsibility for local spaces. Furthermore, the development of jobs around local food production, wildlife protection, and waste reduction were also considered important. Local food production was posed by participating pupils as a way of protecting the environment, along with the reduction in pesticide use, afforestation, nature-based solutions to coastal erosion, and the protection of local and endemic species both on land and at sea.

One significant theme that arose was water conservation. This is not frequently mentioned in the National Islands Plan. While Scotland can expect overall rainfall to increase with climate change, this rain may be concentrated into the winter months. In fact, Scotland could expect to see a summer rainfall *decrease* of up to 47% by the year 2070, compared to pre-industrial times. This poses a serious threat of water shortages in summer, and many young islanders wrote of collecting and conserving rainwater for local agriculture, as well as reducing water waste and pollution.

“

MY LIFE IN 20 YEARS

We have a lot more lakes, and sadly, due to the heat in the sea we now have new species of fish that we catch, such as tropical fish.

Leah and Ceirah, Whiting Bay Primary School, Isle of Arran

”

“

MY ECO-FRIENDLY LIFE

The plants and trees that I plant give homes to lots of wildlife and animals.

Erin, Castlebay Primary School, Isle of Barra

”

“

MY LIFE IN 20 YEARS

I work as a gardener and I plant trees. That is because there were never trees on Tiree when I was a kid. My job is climate-friendly because they give us oxygen, store carbon, they stabilise the soil and give life to the world's wildlife. They also provide us with the materials for tools and shelter, so we can build houses and other stuff.

Honey-Jane, Tiree Primary School, Isle of Tiree

”

A CLIMATE FRIENDLY DAY

When I wake up I see my polytunnel with delicious strawberries, tomatoes, apples, pears, and berries. I love making a smoothie and a fruit salad for my breakfast. It all tastes better when I grow it.

Pupil at Sound Primary School, Shetland

”

“

MY ECO-FRIENDLY LIFE

I have my vegetable patch with onion, carrots, lettuce, turnips, potatoes, radishes, beetroot, rhubarb and broccoli. I water my veg everyday with the rain water I get from the tank in my garden.

Ross, Castlebay Primary School, Isle of Barra

”

IV. Transport: Strategic Objective 3

By nature, islands are reliant on transport services for connections to the mainland, resource supply, and the ability of many island residents to access essential services such as hospitals and shops. Islanders face many challenges with regards to unreliable ferry services, long journey times, high travel costs, and sparse on-island public transport services. The greening of island transportation is an essential part of the transition to net zero. There is increasing demand for electric car charging networks, shared transport options, and active travel infrastructure. Furthermore, heightened storms and coastal erosion caused by climate change put ferry services at additional risk. The upgrading of local ferry services was frequently cited in the young islanders' stories. Themes within Strategic Objective 3 were mentioned a total of 158 times.

Within Strategic Objective 3: Transport, it is stipulated that the Scottish Government will:

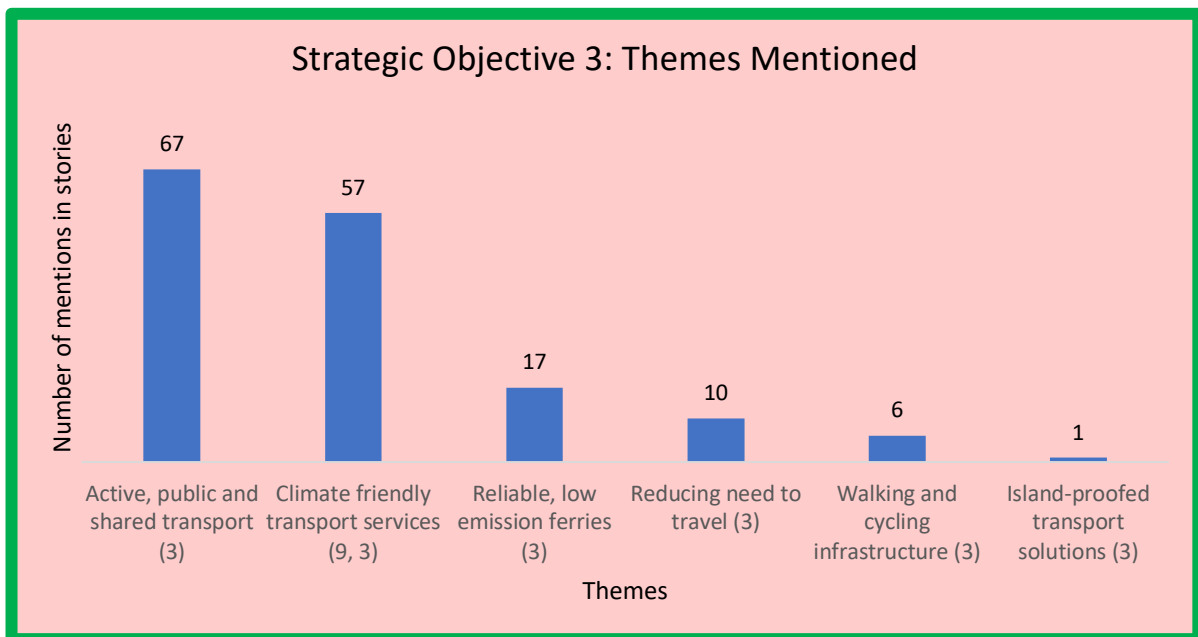
- *Ensure that existing and future transport-related policies, strategies and services are fully island proofed so that they truly meet the needs of island communities.*
- *Engage with local authorities, island communities and transport operators in developing regulations and guidance for the bus services provisions of the Transport (Scotland) Act 2019, which aim to enable local authorities to better respond to local needs.*
- *Produce a long-term plan and investment programme for new ferries and development at ports to improve resilience, reliability, capacity and reduce emissions to give confidence to island communities on our ongoing commitment.*
- *Develop a new Ferries Plan that will meaningfully contribute to delivering the outcomes of wider Scottish Government strategies as set out in the National Transport Strategy and this National Islands Plan.*
- *As part of the next Ferries Plan, review the impacts of Road Equivalent Tariff and consider future ferry fares policy options that will meet the needs of islanders and support island economies.*
- *Also, as part of the Ferries Plan, review and promote integration between ferries and other modes of transport on the mainland and islands, with a view to better facilitating the use of active, public or shared transport for all or part of journeys to and from islands in an affordable and accessible manner.*
- *For the Clyde and Hebrides ferry services, develop and introduce a new booking, reservation and ticketing system, with Smart Ticketing capability, to replace the existing system.*
- *Use the feedback from the NTS consultation to inform the NTS Delivery Plan which will seek to address the different transport challenges faced across Scotland's different areas and regions including islands.*
- *Determine strategic transport investments from our island communities through STPR2 – which will also inform Transport Scotland's Ferries Plan 2.*
- *Work in partnership with local authorities and communities to improve walking and cycling infrastructure, the design of place and access to bikes, facilities, promotion and education to make walking and cycling the most popular choice for shorter everyday journeys including as part of multi-modal journeys.*
- *Explore the potential to reduce the need to travel by using the planning system to promote places which bring people and services together.*
- *Subject to requirements as set out in the Clyde and Hebrides Ferry Service and the Northern Isles Ferry Service contracts, we will always strive to improve, where*

necessary and possible, issues relating to freight and will engage proactively with operators, communities and stakeholders as appropriate.

From these action points, the following key themes were extracted for analysis:

- Climate friendly transport services
- Island-proofed transport solutions
- Reliable, low emission ferries
- Active, public and shared transport
- Reducing need to travel
- Walking and cycling infrastructure

Figure 11. Number of mentions of themes within Strategic Objective 3: Transport. Numbers in brackets indicate whether the theme fits into more than one Strategic Objective.



Transport was a key theme in the young islanders’ stories. Many hope for more accessible active, public and shared transport – in the form of eBikes, electric buses and electric ferries – and the infrastructure to support it, such as increased cycle route options and an improved ferry network. Electric cars were viewed as the normalised mode of transport, and the need for more charging points was mentioned. Ferries were a significant issue that was raised, as they provide a lifeline service to the islands. Notably, pupils in Tiree wrote of electric ferries to replace the aging MV Clansman, which would be more reliable in adverse weather and reduce carbon dioxide emissions. Several young islanders also wrote of reduced need for travel with an increase in and working from home for digitally enabled businesses, and being self-employed as farmers and fishers, for example.

“

MY ISLAND

I much prefer using my bike as it is fun to ride along with my friends too.

Holly and Lucy, Whiting Bay Primary School, Isle of Arran

”

“

MO BHEATHA ANN AN 2040

Is mise Iagan agus tha mi a' fuireach ann an Cleat air Eilean Bharraigh ann an taobh siar na h-Alba agus tha mi 27 bliadhna dh'aois. Tha Barraidh diofraichte a-nis seach gun rathaidean-baighsagal ann air feadh Bharraigh.

My name is Iagan and I live in Cleat on the Isle of Barra in the west of Scotland and I am 27 years old. Barra is different now as it has cycle paths all over the island.

Iagan, Castlebay Primary School, Isle of Barra

”

“

AN ECO-FRIENDLY RUM IN 2040

Just before lunch the boat comes in. I hop into the community Land Rover: it's a fab electric one, they were released in 2032 when diesel and coal were banned.

Eve, Mallaig High School

”

“

SANDNESS 2040

Then I go eat my breakfast and get ready to walk or cycle to work. I work in Sandness so I don't have to travel very far.

Helena, Sandness Primary School, Shetland

”

“

MY ECO-FRIENDLY LIFE

In 2040 I would like people to walk place to place instead of driving or taking buses around the place. If you are not able to walk between places then I want people to travel on electric buses or use electric cars. I will tell people to take the ferry instead of the plane because in 2040 I want the ferry to be electrical so that it does not produce as many emissions.

Patrick, Castlebay Primary School, Isle of Barra

”

C. Strategic Objectives Less Frequently Mentioned

I. Empowered Island Communities and Strong Local Partnerships: Strategic Objective 10

Many of the young islanders' stories emphasised the importance of community. From car sharing to local food production and education, young people understood the importance of community participation in decision making and planning. This is one of the main ideas behind Strategic Objective 10, which posits that a strong third sector helps to ensure that community initiatives are successful. This objective was mentioned a total of 34 times but is an integral part of allowing the other strategic objectives to be achieved and maintained.

From the action points for Strategic Objective 10, the following key themes were extracted for analysis:

- Gaelic
- Local democracy
- Participatory processes
- Capturing differences
- Emergency responses
- Closeness to central government
- Community hubs

Within Strategic Objective 10, young islanders highlighted the importance of local democracy and community participation. Many promoted the idea of 'community hubs' to coordinate adaptation measures, renewable energy resources, and initiatives such as each cleans. Working together was often described as empowering, and a way to enthuse others about climate action and environmental protection. It was acknowledged that emergency services would need to be upgraded to include electric transportation options and better access. It was also raised that there is a lack of access to sufficient funds for implementing community initiatives. One pupil at Tiree High School wrote that: "*The government gave different parts of Scotland money, to help buy things that would produce renewable energy. Everyone on Tiree helped raise money as well*". Young islanders understand that there is significant funding required to take action on climate change and other island issues, but that this is necessary in achieving a carbon neutral 2040.

"Going along the shore on my horse I see all the sand dunes, the new reinforced pier and all the houses with stilts and the new 1mile long 1.75 meter tall wall that was built by our community centre in Whiting Bay. If you were wondering, my electricity comes from my wind turbine and solar panels. My food comes from my farm and our community centre uses donations from people to pay for things like the wall and our new pier."

– Tuesday 8th February 2040, Fraser, Whiting Bay Primary School, Isle of Arran

"I love my island, it is the best and the most eco-friendliest island ever because we can work together to help save the planet."

– A Day in my Eco-Friendly Life, Micheal, Castlebay Primary School, Isle of Barra

"As a community we look after our environment by cleaning the beaches and other places like Michael's wood, school play parks and play parks out of school. We have convinced a lot of people to help our environment."

– A Climate Friendly Day, pupil at Sound Primary School, Shetland

"In 2030 we upgraded our airport by replacing the two runways with two new ones and we bought 2 new electric fire engines and we have an electric ambulance helicopter and we have our own plane."

– Tíree in the Future, Lewis, Tíree High School

II. Housing and Fuel Poverty: Strategic Objectives 4 & 5

Housing is a contentious issue on many Scottish islands and is strongly tied with Strategic Objective 1: Population Levels. On many islands, there are issues with housing shortages, affordability, and accessibility. Much of the islands' housing stocks are considerably old and lacking measures for energy efficiency. Cost of living may be made considerably higher due to increased fuel and maintenance costs, not to mention the energy that is wasted which further contributes to climate change. Fuel poverty is intrinsically interlinked with housing issues and the often high costs of living on Scotland's islands.

From the action points for Strategic Objective 4, the following key themes were extracted for analysis. Those in italics were not previously mentioned in the National Islands Plan, but were frequently mentioned by young islanders:

- Housing
- Energy efficient housing
- Delivery Schemes
- Island / rural minimum income standard
- Reduce fuel poverty
- Addressing high living costs
- *Sustainable building materials*

Many of the children's stories about new housing constructions emphasised the embedding of insulation and energy supplies such as solar and air source heat pumps into new housing projects. A high number of young islanders valued having a warm home, and many others spoke about the importance of sustainable and locally sourced building materials, such as wood grown on-island, and wool insulation.

"My job is eco-friendly because I build house that are very well insulated so that heat does not escape. The houses are heated with geothermal energy and I also put solar panels on people's roofs. I love my job because I am saving the planet."

– A Day in my Eco-Friendly Life, Micheal, Castlebay Primary School, Isle of Barra

"My house is climate friendly because it is well insulated and is made of wood grown on Eigg. I also have solar panels on the roof of my house that heat water."

– My Future Sustainable Island, Freya, Eigg Primary School, Isle of Eigg

"The walls are made from locally sourced pine and it has sheep wool as insulation to stop there being a draught. The main electricity source for appliances comes from wind turbines. This design has been recently upgraded to become more sustainable since the old house was not very eco-friendly because they had a fire all day burning fossil fuels and they had no wind turbines."

– Day in the Life, Jack, Port Ellen Primary School, Isle of Islay

"I wake up and it's nice and warm thanks to my heat pump."

– Shetland in 2040, Isla, Sandness Primary School, Shetland

III. Population: Strategic Objective 1

Depopulation is threatening the sustainability of island living. With global trends towards urbanism making cities and towns more convenient places to live, the decline of rural and island populations makes it difficult to maintain services at an affordable cost. Many islands have rapidly aging populations, and struggle to attract families and a sizeable workforce. Furthermore, jobs and opportunities may be limited to specific industries such as tourism and agriculture. Youth Scotland's Young Islanders Network hopes to address some of the issues that cause young islanders to leave the islands, and what might make them more enticing places to move or return to.

From the action points for Strategic Objective 4, the following key themes were extracted for analysis:

- Gaelic
- Repopulation
- Working with young islanders
- Protecting crofting

"There also seemed to be a massive increase of people. As I sat on the soft healthy grass with the flowers all around me and the bees buzzing near my hands I looked up at the sky and felt a feeling of satisfaction."

– Climate Change, Jemma, Tiree High School, Isle of Tiree

"This made tourism go wild, now there is around 1000 people living on Tiree now compared to the measly 600, just because they love the way we have improved the way we live."

– The Future of the Isle of Tiree, Max, Tiree High School, Isle of Tiree

"Of course, with there being over a hundred people on the island- a far cry from the 40 odd back in 2022- there's always a fair amount of post to deliver and the whole business takes about an hour or so."

– An Eco Friendly Rum in 2040, Eve, Isle of Rum, Mallaig High School

IV. Arts, Culture and Language: Strategic Objective 11

The islands are home to unique artistic cultures and remain important areas for the Gaelic language and traditional dialects. Through the Climate Change Message in a Bottle project, the traditional culture of storytelling in Scotland has provided an opportunity to bring imagined carbon neutral futures seem close and attainable. The arts are also important for fostering a sense of community and island identity, for expressing both a love of specific places as well as the issues that affect them. Many participating young islanders expressed desires for future careers in artistic sectors such as photography and the visual arts.

From the action points for Strategic Objective 11, the following key themes were extracted for analysis:

- Gaelic
- Investing in cultural and historical resources
- Nurturing creative industries
- Sustainable management of the historic environment
- Increasing range of educational options available

"My name is Sophie, I am from the Isle of Vatersay. It is 2040 and I am an artist. ... I sit down and do my artwork in the wonderful outdoors. My paints are homemade. I usually paint wildlife such as bees and flowers."

– 2040, Sophie, Castlebay Primary School, Isle of Barra

"I work as an artist so I make lot and lots of paintings that I sell to people all over the world."

– My Eco Life, Thomas, Castlebay Primary School, Isle of Barra

"I plop myself down on the sofa, turn on the telly -all of our electricity is hydro generated, don't worry- and flick to the BBC Alba channel. Even though I don't speak Gaelic fluently, I still find it interesting to listen to."

– 2037, Kitty Brown, Knoydart, Mallaig High School

V. Education: Strategic Objective 12

Access to a good education on islands is important in attracting families to move onto islands, and for young people to have access to the qualifications they need to have a fulfilling career. A successful school contributes significantly to the community. Many island schools provide Gaelic medium education, which aids the preservation of Gaelic language and heritage. However, many islands schools suffer as a result of depopulation and difficulties in recruiting teaching staff. Furthermore, many young islanders must travel off-island for secondary and higher education. Educational targets must also consider training opportunities for adult learners and the facilitation of distance learning.

From the action points for Strategic Objective 12, the following key themes were extracted for analysis:

- Gaelic
- Working with young islanders
- Increasing range of educational options available
- Child poverty
- Equal opportunities in education
- Adult learning

"We plan to help all school students escape school and help us plant more and more trees in every village on the island. As a community we came together and saved our island and now we are continuing to help by planting more trees and we are being more economical."

– Message in a Bottle, Laura and Lisa, Arran High School, Isle of Arran

"Most children have been taught about being scientists, to help the environment better. Forests are getting larger, and there are more and more animals coming back from extinction."

– My Life in 20 Years, Leah and Ceirah, Whiting Bay Primary School, Isle of Arran

"I had to go to Castlebay Primary School to tell them how climate change effects my job, such as changes like bigger crab sizes needed for sale, and my enormous electric boat."

– Thursday 23rd September 2040, Robbie, Castlebay Primary School, Isle of Barra

VI. Digital Connectivity: Strategic Objective 6

In remote areas, digital connectivity is an essential component of sustainable economic development. Digital infrastructure improves islanders' connections to off-island industries and businesses and therefore has the potential to make islands enticing places to live with remote working having increased dramatically through the COVID-19 pandemic. Many islands continue to struggle with access decent broadband and mobile network connections.

Young islanders' stories mentioned digitally enabled businesses as important parts of future island life, and while the other action points below weren't frequently mentioned, they play in integral part in this.

From the action points for Strategic Objective 9, the following key themes were extracted for analysis:

- Internet quality
- Mobile network
- Data links
- Digital skills
- Coding clubs
- Community based digital inclusion programmes
- Digitally enabled businesses

"I will work as a google worker and work remotely from the island with occasional trips."

– My Life in 20 Years, Nicolas and Flynn, Whiting Bay Primary School, Isle of Arran

"I use my laptop to meet clients online, this is eco friendly because it means by clients do not need to travel to my office and it saves money for my client because he doesn't have to pay for fuel."

– My Eco-Friendly Life, Rowan, Castlebay Primary School, Isle of Barra

VII. Health and Social Care and Wellbeing: Strategic Objective 7

While the themes within Strategic Objective 7 were rarely mentioned, many young islanders wrote of their future islands as safe, welcoming places. One child wrote of the importance of community sports facilities and activities, and another wrote of futures where no-one feels discriminated against. Many also wrote of futures with reliable emergency services, and low emission planes and helicopters – which provide essential healthcare links from remote communities to the mainland. Strategic Objective 7 is intrinsically linked with the other Strategic Objectives of the National Islands Plan.



4

Conclusions

Through Climate Change Message in a Bottle, young islanders have learnt about climate change and environmental governance and explored what a rapidly changing world might mean for their island futures. The project has brought to light that young islanders are aware of and ready for the changes that will make their carbon neutral futures a reality on islands across Scotland.

From the 140 stories submitted, young islanders explored themes of renewable energy; local food production; active, public and shared transport; waste management and circular economy; and climate friendly transport services, among others. All of these themes appear in the Scottish Government National Islands Plan, and the young perspectives expressed through Climate Change Message in a Bottle offer specific nuances to these strategic targets. Islands are an integral part of the global net zero ambition, and must also nurture sustainable and flourishing livelihoods for their young people who, by 2040, will only be beginning their adult lives. It is hoped that organisations at all levels of the public, private and third-sectors can make use of this report to implement climate solutions that benefit young islanders in multifaceted ways.

Once again, Climate Change Message in a Bottle would like to thank the Scottish Government for funding and support, as well as Island Innovation, Youth Scotland, UistFilm, Taigh Chearsabhagh Museum and Arts Centre, Scottish Islands Federation, Glasgow City Council, The Edge Foundation and Glasgow Science Centre. In addition, a thank you is extended to organisations involved in the design and establishment of the project, including the University of the Highlands and Islands, Royal Scottish Geographical Society, Highlands and Islands Enterprise, the One Ocean Hub and colleagues at SCELG.

Finally, a thank you to all of the teachers, island champions and students whose effort in reimagining their island futures will continue to shape sustainable island livelihoods in years to come.



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Information About Our Partner Organisations

Climate Change Message in a Bottle would not have been possible without funding and support from the Scottish Government, and collaboration with the following partner organisations.



Scottish Government

With thanks to the Scottish Government for funding and support. In particular, the Scottish Government Islands Team's input has been an invaluable asset to the project.



Island Innovation

With thanks to Island Innovation for producing and hosting the Climate Change Message in a Bottle interactive map, as well as our online COP26 event. Island Innovation are a global network that connects island stakeholders through digital communication and events.



Taigh Chearsabhagh Museum and Arts Centre

Taigh Chearsabhagh Museum and Arts Centre is on the Isle of North Uist in the Outer Hebrides. They are home to UistFilm, which produced the Climate Change Message in a Bottle film.



Youth Scotland

Youth Scotland are a network of youth groups and were essential in sourcing Climate Change Message in a Bottle's Island Champions, who delivered the project locally on their islands.



Plus many more...

Climate Change Message in a Bottle is grateful for the support of the Scottish Islands Federation, Glasgow Science Centre, Glasgow City Council, The Edge Foundation, Highlands and Islands Enterprise, One Ocean Hub, Pacific Islands Students Fighting Climate Change, Royal Scottish Geographical Society, University of the Highlands and Islands, and many more...



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Participating Schools

Arran High School – Isle of Arran
Bell's Brae Primary School – Shetland
Bembridge CE Primary School – Isle of Wight
Broadford Primary School – Isle of Skye
Brodick Primary School – Isle of Arran
Castlebay Primary School – Isle of Barra
Dounby Community School – Orkney
Eigg Primary School – Isle of Eigg
Eoligarry Primary School – Isle of Barra
Fair Isle Primary School – Fair Isle
Greenland locations x 2
Gymnasium of Astypalea – Astypalea, Greece
Harvest Academy – Solomon Islands
Iolani School – Hawai'i
Kilmory Primary School – Isle of Arran
Kirkwall Grammar School – Orkney
Lamlash Primary School – Isle of Arran
Lochdonhead Primary School – Isle of Mull
Mallaig High School – pupils from Isle of Rum and Knoydart
Marown School – Isle of Man
Muck Primary School – Isle of Muck
Patukae School – Solomon Islands
Port Ellen Primary School – Isle of Islay
Rum Primary School – Isle of Rum
Sandness Primary School – Shetland
Sgoil an Iochdair – South Uist

Sgoil an Rubha – Isle of Lewis
Sgoil Bhaile Mhanaich – Benbecula
Sgoil Dhalabroig – South Uist
Sgoil Lionel – Isle of Lewis
Sgoil Uibhist a Tuath – Isle of North Uist
Sound Primary School – Shetland
Stromness Primary School – Orkney
Tiree High School – Isle of Tiree
Tiree Primary School – Isle of Tiree
Whiting Bay Primary School – Isle of Arran



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