



'Paradise Lost'

A Report on the Emotional and Personal Impacts of the Crisis of Lough Neagh



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Acknowledgements

We thank all those participants who gave up their time to be interviewed and share their thoughts and feelings about the crisis in Lough Neagh.

We dedicate this report to them and to all those fighting to revive and restore the Lough.

And we want to make a special mention to all the animals that live on the Lough and that visit Lough Neagh throughout the year. Who speaks for the birds and the eels? What would they have to say about what has happened? If we could have interviewed them we would have...

Executive Summary

“This is Paradise Lost”

The ecological crisis at Lough Neagh captured public and media attention in the summer of 2023, as an unprecedented bloom of toxic cyanobacteria (commonly known as ‘blue-green algae’) spread throughout the largest body of freshwater in Ireland and the UK – and the source of 40% of drinking water in Northern Ireland. For many people, this ecological event was a warning bell and indication that Lough Neagh is in urgent need of help. For others who had already been bearing witness to the Lough’s declining health, it was the obvious culmination of many years of its maltreatment and misuse. This was – and is – especially true for those whose lives and/or livelihoods are in some way shaped by their deep personal connection to it.

Based on interviews with 12 such individuals, this report finds that these connections include but go beyond economic or recreational/aesthetic interests. It is of course not reflective of all views about the crisis, nor those of the local communities that live around the Lough. However, the discourses and narratives found do, we think, echo many of the main concerns that have been raised about the crisis, including what its root causes are and how to address those causes while also engaging in work to reduce the worst impacts of what has happened to Lough Neagh.

The sample includes commercial and recreational fishers; people who live on the Lough shore and/or grew up around it; people working in services directly linked to the Lough (community, voluntary and private sectors); open water swimmers; elected representatives; and scientists who worked at the now-defunct Ulster University Research Centre at Traad point. The interviews were conducted between November 2023 and May 2024.

Our motivation for conducting this work was to capture the sentiments of some of the people who care most for Lough Neagh, from the communities most directly and significantly affected. This report therefore attempts to articulate what is so rarely – if ever – acknowledged or measured by our public bodies when seeking to understand, respond to and manage environmental crises, in the emotional, mental and psychological impacts they have on local people and frontline communities.

Our hope is that this report will help to raise the voices, concerns and wishes of those who are too often voiceless and unrepresented in discourses on environmental crisis and action, and left powerless in decision making. This includes the Lough itself, and

the abundant more-than-human life it supports and sustains, and the long histories of peoples' connections with the Lough.

Many of those interviewed reported a deep emotional and cultural attachment to Lough Neagh, often based on long, multi-generational family ties to its shores, waters and natural life. They hold extensive, valuable, intimate knowledge of the Lough that encompasses but also stretches beyond scientific-ecological understandings of its unique ecosystems, to include its presence, role and importance in historical, social and cultural life and ways of being.

All interviewees report different levels of distress, anger, sadness and hope or hopelessness about the causes and possible remedies for the Lough. For some, there was a strong mental health and wellbeing connection to their use and enjoyment of the Lough, including being deprived of this because of the algal bloom, resulting in a reduction in the quality of their lives and both mental and physical health. Almost all were deeply critical of the various statutory and other bodies that have the protection of the Lough as some part of their remit. These organisations and agencies include the Department of Agriculture, Environmental and Rural Affairs (DAERA), Northern Ireland Water (NI Water), the Rivers Agency, the Department for Infrastructure (DfI), the Lough Neagh Partnership and local political parties. Concerns and criticisms were also shared about polluting industries, including manufacturing and intensive agriculture.

This report is not intended as an investigation into the causes, consequences and solutions to the crisis; though we hope it will help contribute to that work. One of the findings of this report is the need for more research, ecological, epidemiological and economic, and also in terms of the need for more collaborative research (i.e. involving all members of the community and stakeholders) on the appropriate modes of governance and policy development needed for the restoration and ecologically sustainable management of the Lough. In particular, this report should be viewed as complementing scientific research and work that is urgently needed. It is for others to propose and action remediation measures to restore the Lough to good ecological health, such as the DAERA minister and their officials. This report is 'bearing witness' to the human impact of the ecological disaster in Lough Neagh, and while we as researchers have interpreted the interviews and written this report based on that interpretation, we hope it is read as an accurate account of what people told us.

Contents

- Executive Summary 3
- 1. Introduction 6
- 2. Connections and Feelings about the Lough 8
 - 2.1 Emotional impacts 9
- 3. Causes of the Crisis 12
 - 3.1 Ownership of the Lough 13
 - 3.2 Climate Change 13
- 4. Farming 15
- 5. Statutory Bodies 18
 - 5.1 NI Water 19
 - 5.2 DAERA 20
 - 5.3 NIEA 21
- 6. Ways Forward: from hopelessness to hope 22
- 7. Conclusion 26

1. Introduction

“Never in my lifetime!”

Unsurprisingly, the unprecedented scale of the blue-green algal bloom came up in all interviews. However, other manifestations of the problems facing the Lough were also mentioned. A notable example is the dramatic decline in the ‘Lough Neagh Fly’ (a native species of Chironomidae or ‘nonbiting midge’), described as the “bedrock of the Lough Neagh ecosystem” by one person. Several interviewees said that the swarms they would normally see have massively decreased from the times they appeared in such huge numbers that they were “like smoke” and you “had to vacuum the flies off the windows”. They reported noticing a massive decline in the fly population over the last number of years, while pointing out that they are a main source of food for the Lough’s fish and eels.

Some interviewees gave the shortage of flies as the reason why the eels were skinny in 2023. One person said they had “No idea what has happened but to kill off the chironomids it must be really bad”, suggesting it was “Some kind of toxin, how can you kill all those wee shrimps that have been there since the glacial period?”

Beyond the collapse of the fly population and its consequences for eels and fish, the impacts of climate change disrupting migrating birds and how agriculture and land use practices have reduced species like the corncake, as well as playing a major role in the crisis in the Lough, were spoken of. Some saw the local crisis in and of the Lough as part of a more global ecological crisis. For them, the algal bloom was like chickenpox or measles spots, signs of an underlying malaise that has been there for some time; a symptom rather than the cause of the declining ecological/marine/water health of Lough Neagh.

“If you can see a pollution incident from space it shows you that something serious has gone wrong. But this year [2023], what a lot of people knew what was happening suddenly became so visible that everyone got engaged with it.”

For some, there was a desire to name the extractive one-way relationship humans have had with the Lough for too long, but also to use the crisis and how it is responded to as an opportunity to 're-set' that relationship to be more sustainable and respectful. Two people we interviewed expressed this in the following ways. One expressed a common view amongst interviewees that no one benefiting from the use of the Lough gives anything back to it. While another, reflecting on their experiences during the Covid-19 lockdowns, said that,

“The water was there for us when we needed it, now it needs us. Lough Neagh needs us. It needs us all”.

2. Connections and Feelings about the Lough

“Something really bad happened in the Lough”

All interviewees expressed very strong emotional, familial and psychological connections with the Lough. Many said they loved the Lough and their connection to water, with one interviewee saying it was a great place to “get your head showered” and reduce distress, to find peace and to experience and enjoy a quality of life via witnessing the Lough’s beauty. Many reported feeling connected to the ecosystem, to its wildness. Almost everyone expressed a keenness to preserve nature. One person said that the Lough was “unique with a lot of history”, going one to note that it had “little pockets of Irish rain forest so rare and so little left, little bits of trees, moss, frogs, undisturbed lichen, you don’t get elsewhere”.

The wellbeing benefits of living in and especially swimming in the Lough were expressed by several interviewees. For one, their mental health and that of their family depended on using the Lough for water therapy, and not being able to enjoy the water as they once did has caused them and their family deep mental health problems. They have had to return to using medication as a result of not being able to access and swim in the Lough. For another open water swimmer, “When you’re swimming in the Lough your mind just clears and you have to focus fully on being in the water, and just ‘be’ – it’s lovely. Swimming with herons, ducks, swans – rest you, rest your brain”. This was similar to others, for whom swimming in the Lough “recalibrates the brain”, “awakening all your senses” in being able to smell the grass, being in the water, surrounded by birds, and being in the outdoors with the “cold hitting your skin, on a frosty morning you can smell the cold, resets my brain”.

Some interviewees had long family connections to the Lough going back generations, with some having members of previous generations of their family working on the Lough in fishing or farming. For one person their longevity and historical connections to the Lough were not just from their family (going back 400 years), but that they had been involved in environmental campaigning to protect the Lough and its surrounding ecosystems from the early 1980s.

2.1 Emotional impacts

“Dread to think what next summer will be like”

Feelings of deep upset and sadness were commonly expressed by interviewees in a range of ways. One person spoke about “looking outside and it’s perfect conditions for a swim and I cannot go out and have a quick dip and reset and this makes my anxiety increase”. Another said that what has happened is “horrendous”, that they were “sickened and sad” and that it felt “like getting a kick in the guts”. Another said they felt sad “to see it dying in front of my eyes”. For others, what had happened was “catastrophic”, going on to say that it makes them sad. One person said, “It was the strangest phenomenon that I’ve ever seen in my entire life. It was biblical, of biblical proportions.” Another said it was a hard thing to see “such a massive body of water being ignored”, while another described it as “an extinction event”: “The ecosystem is gone, there is no coming back. The flies are extinct”. Someone who moved to the Lough in the 1970s described it as “paradise” and that what has happened now as “It’s paradise lost” and “I went into a panic at one point”.

Many interviewees said that their emotional attachment to Lough Neagh came from spending time in and on the Lough, and that they were deeply affected by seeing it “being desecrated, awful to see it”. This feeling of sadness was also related to a sense for some of not being able to paddle in the water, not having a chance to bathe in it and feeling that “simple enjoyments in life are deprived now”. For others, it was “heart breaking to see the species that I used to take for granted year upon year and I understand all that’s out there, but there’s nothing there anymore. I’ve seen two otters and seagulls and birds falling out of the sky dead, it’s unbelievable”. For many there was a palpable sense of grief and mourning for the death of the Lough, the passing of how it once was and their relationships to it:

“We were in mourning for the Lough. You say it’s not dead, but all I can see now is the bones of an old person. The Lough had the stink of death.”

Others spoke of a deep sense of sadness that “the inevitable has happened”, but that there were also some positive outcomes from the crisis. These included the fact that “people from all walks of life and all areas” are now aware of and interested in the crisis, showing that “there is an

incredible emotional connection to that great lake we have there. In Britain and Ireland she is the great lake that's there, and almost a hidden relationship, a hidden love, respect for it that is now coming out". Another noted that, while feeling sad about what has happened, it has unified people, that "we as humans have created this issue" and there is a shared responsibility, and we just need to get it fixed regardless of who or what has caused it.

Some did not feel hopeful but scared about the Lough and afraid of losing the social aspects it brings. For one person, this was linked to feeling that if nothing changes her children and their children will not be able to enjoy the Lough and create memories and that "wildlife will die off", alongside a fear for the fishermen, some of whom are third, fourth and fifth generation fishers.

For some, this feeling of sadness has passed and resulted in them feeling powerless and lacking in agency. Looking around them, some of the interviewees saw a lack of concern by others in the community as either not fully understanding the scale of the crisis or denying there is a crisis at all. As one of those interviewed put it, "Denial for a lot of people around here is a way of dealing with it. It's a coping mechanism. They're hoping it will be OK next year or in a month's time". For others, while they miss the Lough the way it used to be, and while losing their enjoyment and previous relationship to it has meant them feeling sad and frustrated, they also felt "powerless really. What can I do, being frank about it? I did feel angry, but not feel resigned, can't see what I can do?" But they also recognised that "we need to change things. We can't carry on the ways it's going."

Anger was also another common emotional response. Sometimes this was both anger at what has happened but also at the failure of those government and governance bodies whose job it is to protect the Lough. As one interviewee put it, "there's not one government body working to help." Another said they were "devastated, upset, annoyed, frustrated, so cross, angry" that they could not take the risk of using the Lough for themselves or their children.

For many, the Lough is like a friend or relative that is sick, and "you just want to naturally try and want to help them to make them better, to comfort them." For others, "it's on its knees and very unhealthy" and "she's not looking too healthy at the minute".

Across a lot of participants there was a feeling that local people knew for quite some time before the publicity around the algal bloom in summer 2023 that things were not ecologically good in and around the Lough. There was a common view that locals, those with scientific and lay knowledge of the Lough, should be involved in its management and restoration. For one person, when asked about how they felt about what had happened to Lough Neagh they said,

“My own feeling was almost ‘I told you so’. I’ve always seen Lough Neagh as almost more than a lake. My grandfather would have talked about the Lough as a person, a lady, a ‘she’... talked about a personification of the Lough. And this year she was crying out for help. ‘What have you done to me?’ It was the Lough calling out for help. And that body of water that sits there, it was so forgiving for so long, of all the excess we allowed to go into her, she was able to manage it, this year she just could not cope. *‘I can’t cope anymore.’* That was the emotion I felt. I knew it would happen.” (emphasis added)

3. Causes of the Crisis

'Like baking a bad cake'

All interviewees recognise that there were multiple causes of the crisis in Lough Neagh. As one put it, there was a confluence of events: nutrient run-off, bad weather and heavy rainfall, climate change and an increase in the temperature of the Lough. "Like baking a bad cake", as one interviewee put it, all these ingredients going into the Lough resulted in the algal bloom and other ecological impacts.

Interviewees viewed the Lough as "a natural resource for Northern Ireland", with one person saying, "dredging is a disaster and how we're letting people do this and let NI Water shove sewage into the Lough, and it's all about money at the end of the day". This was similar to what another interviewee said about the Lough being "exploited by private concerns."

All interviewees understood that a proximate cause of the blue-green algae bloom was too much 'nutrient' entering the Lough; and all understand 'nutrient' to mean animal slurry or human waste, with one participant summarising it by saying that it's "lots of poo" that is at root of the problem. The treatment of the Lough is as part of the Northern Ireland sewage system. One interviewee said that what was needed was to "allow the Lough to breathe", but asked where will the sewage go if it was prevented from being dumped into the Lough? Another said, "We've known since 1981 that all you have to do to reduce algae is reduce phosphorous."

Many interviewees pointed out that there had been ecological and pollution problems in the Lough for many decades, including algal blooms in the 1960s and 1970s. One person highlighted that industry in and around the Lough was allowed to pollute because of links into politics and the farming community back in the 1950s. For another, the cause was zebra mussels that have consumed the organisms once eaten by the eels. This was contradicted by another interviewee, who said "no one can walk away from Lough Neagh the way it was this year and blame it on the zebra mussels." Another suggested there was "a catastrophic spill of some sort of liquid that has come into that Lough at the beginning of 2023 that caused the algae, 'cos it was never there before." For some, to kill midge larvae that need low oxygen shows the toxicity of the ecosystem, and that it was "unbelievable".

Some interviewees also pointed out the longstanding health issues of people who live in and around the Lough – with one person referring to "the Lough Neagh cancer basin" – and also

mentioned the health problems with people drinking from Lough Neagh. For another, there was a “Health nightmare waiting to happen”, proposing that the health of the population close to the lough shore should be studied and monitored, since they had concerns about a cancer cluster around the Lough. They said it was amazing how many people in the area have cancer and how many people in their families have cancer. Another interviewee talked about a fisherman friend who was off sick for 10 days after coming into contact with the blue-green algae, while another reported that fishermen were getting burns from the algae.

Others pointed out that algal bloom can reduce immune systems of organisms, and this increases the chances of deadly viruses and parasites, going on to say, “It is getting worse, and worse and worse. *We’re one step beyond catastrophic.*” (emphasis added)

3.1 Ownership of the Lough

One interviewee said, “*Nothing that has happened in Lough Neagh is down to the ownership of it.* If it was owned by government, if it was owned by ENGOs [environmental non-governmental organisations], if it was owned by the community, there would be nothing different to what has happened to the Lough in this last year” (emphasis added). They said there was a danger of “political groups” using the crisis in the Lough to say that the cause of the mismanagement of the Lough is due to it being owned by someone who has no interest in it, stressing that “ownership makes no difference to the blue green algae, that comes from what goes into it [the Lough].” However, others were of the view that the Lough “should be a common resource and something we all look after and the government looks after, *it should not be privately owned*” (emphasis added).

3.2 Climate Change

Many of the interviewees raised the issue of climate change as another factor to be considered as a contributory cause to the crisis. Some pointed out that with climate change we can expect an increase in flash flooding and intensity that we’ve not experienced before, and that this exacerbates the problem. One person pointed out more intense flooding incidences puts “those guys operating the sewage works in a difficult position”, in terms of having to release sewage that has been untreated along with storm water, as there is no separation of the two.

Some interviewees highlighted both the role of climate change in causing the crisis and seeing the local crisis in Lough Neagh as part of a wider impact that climate change is having around the world. They also noted that climate change was having other local negative effects. For example, some interviewees said climate change was affecting migratory birds who were no longer coming in the numbers they once did to the Lough.

4. Farming

“If farming is the cause of phosphates and nitrates, that has to be massively reduced”

While recognising the role of intensive farming in creating the slurry-pollution problem, many interviewees were also keen not to solely blame farmers. As one noted, “We shouldn’t be demonising the farmer, we need the farmer on our side, they are part of our community” and we need a “we’ mentality – we are the cause, but we can be part of the solution”. Another noted that a lot of people around the Lough have strong links to farming and they don’t want to get involved in questioning the role of farming in causing the crisis in the Lough. They also pointed out that the “farming industry has leverage and is important”, and people don’t want to upset the people they know. Some of those interviewed said we need to work with farmers and encourage tree planting and new ways of managing slurry. However, they also noted a problem is older people on farms are stuck in their ways, and so this will be a challenge, but that farmers need to be guided and helped by government and society to change.

Farm run-off was a major cause of the crisis, with some noting the amount of slurry being spread right up to the edge of the Lough and also entering the Lough via sheuchas, streams and rivers. Here, some solutions were posed including paying or requiring farmers to fence off a strip of their land close to the shore or river to prevent slurry run-off. It was noted by some interviewees that these ‘buffer strips’ are happening, and that government is working with farmers to implement them at 10-20 metres distance from water courses, and ideally this should include planting trees to stop the nutrients getting into the watercourses. One interviewee said that climate change legislation will require new methods of farming and incentives to reduce or get rid of farm waste, such using it as a feedstock for anaerobic digestion. The latter suggestion was also posed by two others.

For some, it is the case that intensive dairy and beef production has resulted in too much effluent entering watercourses that feed into the Lough, but that government policy, especially the 2013 ‘Going for Growth’ strategy was mentioned by a couple of interviewees as the root cause of this issue. For one person the intensive farming in the last 10 years “has been a disaster, and they’re doesn’t seem to be any regulation that’s protecting the environment, taking samples will not cut it”.

One person noted that, “If farming is the cause of the phosphates and nitrates, that has to be massively reduced”, and we take this to mean a reduction in the pollution from farming, rather than a reduction in farming itself. Some of the interviewees said that the worse policy decision that is a cause of the problem is the importation of high protein and high phosphorous feedstock for animals. They also said, “The policy to intensify agriculture beyond the carrying capacity of the soil and waterways has been the problem”, referring once again to the 2013 ‘Going for Growth’ strategy. One person gave the example of the injection of slurry into the ground. They said this was done to reduce the smell, but a day or two after the land is “coated with gulls, killing the worms who come up to eat the slurry and so this damages of the quality of the soil”. For another what needs to happen is to “Ban imports of phosphate in fertilisers”. A potentially positive development mentioned by one person was DAERA’s Soil Nutrient Health Scheme. For them, “the soil sampling that’s going on...Lidar mapping being done, shows each field has a natural drainage point and if there were Nature based Solutions that something could be planted there to soak up a percentage of the nutrients run off during storm events, wouldn’t that be a wonderful quick fix?”

Another highlighted the “huge amount” of feedstock that is imported causing huge nutrient imbalance that what the grass and soil can hold/absorb. This has resulted in more nutrients coming into the ecosystem than the grass/soils can absorb and suggested that the way to deal with it was to restructure the farming sector in NI, with a balance of arable, market gardening alongside dairy, beef and poultry. They noted however that the ‘Going for Growth’ strategy was against this and also was of the view that the modern high intensive farming modern within the region is being driven by supermarkets not farmers, this has led to a huge imbalance in the farming system and its impacts on the local ecosystem, including Lough Neagh. This latter point was also taken up but another interview who noted that: “The big agri-food companies have a lot of political clout, and although quite a small union the UFU has a membership of I think around 10,000, most of our ENGOs have a bigger membership, yet they [the UFU] have a huge political sway in terms of what happens NI the agricultural sector”.

One person noted in discussing the role of farming in causing the crisis, that farmers have been acting in accordance with and incentivised by government policy

“If you’re encouraged to do things and all of a sudden you’ve told you’d doing things wrong. You feel a bit beguiled and think ‘hold one a minute, you’ve led me up the garden path, you’ve taken me here. You’ve supported me, you’ve paid me to do all of this, you’ve taught me to do all of this, and now I’m heard and now you’re saying I’m the cause of

the country's biggest environmental disaster in years, but all I've done is follow your policies".

This person went on to suggest that, "So I think care has to be taken that *those policies are shifted in a way that don't blame those business people* who have followed the opportunities, the subsidies and the encouragement that they have been led to follow" (emphasis added). Another pointed out that there was an urgent need to reduce agricultural impact and need to measure it, suggesting using "drones in the sky during the slurry spreading window", to monitor compliance.

Many interviewees pointed out that "farmers as your neighbours, friends", and while most farmers complied with the environmental regulations, there was acceptance that some have gone "OTT and some farmers are ruining the Lough and water courses". For one person, "It's not just Lough Neagh, its every water course in NI, in Ireland. Excess nutrients is now up the political agenda". A few people talked about the conservative nature of the farming community and that it was an aging industry with older ways of thinking and land management, and one that struggles to adopt new ideas and practices. This was in the views of some of those we interviewed, preventing the adoption of more nature friendly farming techniques, multi-species sward, the use of clover for fixing nitrogen, greater development of anaerobic digestion as a solution to the slurry problem. More work on soil evaluations and sampling were needed for some interviewees, to help identify for farmers if fertilisers were needed for their land or whether the wrong fertiliser was being used on the wrong land.

5. Statutory Bodies

“High Confidence of low achievement”

There was consistent criticism of statutory bodies across all interviews. As one person memorably put it, quoting from a recent Office of Environmental Protection (OEP) report, that when it came to the stator bodies with responsibility for protecting Lough Neagh, they had “High confidence of low achievement”, while for another “Whenever they are approached, they go into a hole and hide”

One affected business person was frustrated that they received no help with the impact on their business of the algae bloom, resulting in a lot of stress and frustration, and compared their treatment to the to the financial support for affected businesses in Portadown when the town suffered a major flood in 2023. For another they were of the view that vested interests had ‘captured agencies’, calling it “banana republic stuff”, with corruption in agencies at highest level and in government. For another, NI governance as a whole is dysfunctional in terms of environmental protection, stating that not one of the bodies set up to protect the environment is doing its job. For one person signs telling people about the algae “are done not to protect the Lough but to avoid litigation”. Many were sceptical about talk, meetings and research being commissioned “to state the obvious”, as they felt this will not lead to any positive action. From their point of view, “we know what the problems are, address them”, while another noted that, “There just seems to be a big hole where responsibility goes cos it might cost money”. For some the government is harming the Lough, with one person saying that they are not putting the right policies and procedures in place and not holding companies to account for polluting, highlighting the “slap on the wrist” that Mash Direct got for a pollution incident, which they viewed as “completely inadequate”. Others in a similar vein said of NI Water and government departments that, “They want to protect the polluters”. One interviewee said that a senior civil servant had told them, “The whole things fucked, we’re up the creek without a paddle”.

5.1 NI Water

“Adding shite, to clear the shite”

Northern Ireland Water (NI Water) was stated as treating wastewater and drinking water together with same chemicals by one interviewee. They went on to say that rather than stop the pollution “they are adding chemicals to the water to ensure its drinkable...adding ‘shite’ (chemicals) to clear the shite already in the water”. A number of interviewees also pointed out the inadequate water and wastewater treatment infrastructure that NI Water operates. One interviewee said we had a third world sewage treatment system. Others made the point of the dangers of not having separate water and storm treatment capacity, meaning that when there are heavy rains this results in NI Water releasing raw, untreated sewage into the Lough.

Many interviewees acknowledged that NI Water does not have funds to bring its wastewater treatment and sewage systems up to standard, with one stating that in their opinion we have a ‘third world sewage system’ like Latvia, Croatia, Romania. Some of this interviewed pointed out the inadequacy of not separating the storm and sewage systems, meaning that heavy rain means sewage flushes into the bodies of water and NIW saves money as they don’t have to treat the wastewater.

One person noted that as a public body they are not clearly doing enough, but not completely to blame, pointing out that planning has allowed effluent from housing estates running into rain water and non-separation of storm water and sewage pipes and systems. Another said that the “industrialisation of the west of the province” has increased the population and the demand for houses which need sewage systems, but the lack of investment in wastewater treatment has meant that homes cannot get planning permission to be built as the existing sewage works is overloaded and beyond its capacity.

Some stated they do not believe NI Water when it says it does not dump raw sewage into waters. This distrust in government bodies was not unique to NI Water, with other statutory bodies and agencies also not being trusted or believed. Others said that NI Water need to stop pumping sewage into the water courses and then pulling it out the next day for drinking water. They went on to state “My water comes from Lough Neagh south and its foul, tastes like licking it from ground, charcoal cannot clean it”.

5.2 DAERA

“Pure corruption”

For one person “DAERA is a complete joke” and questioned what the toxicology report on fish to see if fit for human consumption is being hidden from the public. For them, “someone somewhere is scared to produce the report to the public because of what was found” and the Department was “Playing politics with people’s lives out there in Lough Neagh”. Another said that it’s an “anomaly” to have department like DAERA with both Agriculture and Environment, since its clear the former is prioritised over the latter. The tension between these was evident for this person during the Climate Change Bills when they were being debated in the NI Assembly. There were deep contradictions between the environmental protection elements and the farmer interests and the ‘Going for Growth’ strategy. For this interviewee, this contradiction in the structure of the department itself that has to be addressed, while another said, “*DAERA needs to be disbanded and replaced*”. “People in these departments, especially DAERA, getting well paid and no answers and not listening to ourselves the local people like ourselves who knows the Lough inside out and can see the changes for ourselves”. For many we interviewed there was a sense that rather than protecting the Lough, a more important objective for the Department was to protect itself, with one person of the view that establishing taskforces, having meetings, consultations and so one is about the Department “protecting itself”.

One person said in relation to sand dredging, that this had been allowed to operate illegally for many years, and then a previous Minister retrospectively legalised this ecologically destructive activity. For this person this was “Pure corruption” and “Ministers breaking the Law”. For many, as already suggested, they were critical of the 2013 DAERA ‘Going for Growth’ strategy, seeing it as a major case of the slurry running off into the Lough, as a result of the expansion of the cow herd and the intensification of beef and dairy production beyond the capacity of the soils to cope with the effluent produced by this. Others also pointed out the inadequacy of its nutrient action plan and it’s failure of to ensure cross compliance, along with its failure to fence off rivers and not checking septic tanks. This issue was not specific to Lough Neagh but to all water bodies in Northern Ireland with one person pointing out that nutrient levels rising across all lakes and rivers for a long time. For them, nitrates and phosphates have increased since the introduction of the ‘Going for Growth’ strategy, with the NIEA just monitoring the decline of water quality, not stopping it’s decline.

5.3 NIEA

“Going to have to move NIEA out of DAERA”

Many interviewees were of the view that Northern Ireland needs an Independent Environmental Protection Agency as the NI Environmental Agency was not doing its job as it is under DAERA and therefore not independent. A common view was this, “Going to have to move NIEA out of DAERA and have an independent EPA, but can’t see this happening, DAERA won’t allow it”. A common perception was that NIEA, as part of the ‘environment’ remit of DAERA, is much weaker than the agriculture element, and that any environmental protection cannot threaten the ‘Going for Growth’ farm intensification and its export-oriented beef and dairy strategy. The NIEA was also criticised for not monitoring the fly population of Lough Neagh, which was seen by many as the foundation of the ecosystem of the Lough.

6. Ways Forward: from hopelessness to hope

“I am really, really scared about the Lough”

For some interviewees, “It’s a deep tangible desire that the Lough needs to be protected and almost that it should have its individual rights, almost like a person should have and that we’ve violated those in some way, so there is that type of emotion that has come through me, and from a feeling of hopelessness at the start of the year when this first happened to now a feeling of hope that something good might come of this that we just can’t go one basically putting dirt into the Lough at the rate we’re doing it and hope that it’s going to forgive us and somehow be our natural sewage works. It isn’t and it can’t be”.

Another said,

“If a friend or a relative is ill, you want to naturally try and want to help them to make them better, to comfort them... so my feeling is wouldn’t the Lough herself be proud that all these people are s would not have expected to stand up for her?”

For some interviewees the crisis and the publicity around it has brought some positives; ranging from raising awareness amongst those who were uninformed, bringing people together to demand the government protect and restore it, and generating more publicity about the Lough, its communities, and the crisis. Even though 40% of NI’s drinking water comes from Lough Neagh, a fact that many interviewees stressed, many people are unaware of this, with one participant saying that people in Belfast are oblivious to the crisis “yet they are drinking the water”. In contrast, another said that the crisis has meant that it’s become apparent that we are using Lough Neagh as an overspill sewage drain, which is making people think “hey I’m drinking this”. The issue of drinking water was raised by many, with one saying, “I don’t know where it’s going to go.. if it gets bad might not be able to get drinking water from Lough Neagh”. They went on to say that the government was now looking to tap into groundwater in search for drinking water, and that the Geological Survey of Northern Ireland was looking for suitable aquifers. Another said that there are ‘end of pipe’ solutions that could be implemented that are cheaper than new wastewater treatment plants, but also noted that there was ‘legacy phosphorous’ from manure in the bed of Lough Neagh, which is being released. They stated,

“Every action has to be measured by the phrase ‘this will prevent so much phosphorous entering the Lough’”.

A number of interviewees mentioned the need for research and monitoring the water quality and ecosystem health of Lough Neagh. A few spoke of the closing down of the Ulster University’s Ulster Freshwater Laboratory at Traad Point as a great loss and the need for more research to be done in restoring and repairing the Lough. One person in supporting, like other interviewees, the need for an independent Environmental Protection Agency also linked this to “bringing together experts in Northern Ireland, and academics to help”. This is linked to what another interviewee said, “The more we dig the more we find out that people don’t know what’s happening. Everyone across the UK and Ireland monitors invertebrates in lakes, and for some reason NIEA don’t. We’re asking why?” and like others interviewed stressed the importance of accurate, regular and independent monitoring of the water quality and ecological health of the Lough, its species and ecosystems.

Others were more realistic /pessimistic about the effectiveness of campaigning. One person said that while they were committed to the campaign, they were unsure about its effectiveness, noting that while there had been good media coverage about the crisis, asked, “has actually anything changed? It’s not high on peoples list of priorities”. They said that while people do care about the Lough, it’s in an ‘airy fairy’ way but don’t do anything – this care is passive. For this person they “don’t know what needs to be done to protect the Lough”. Another said, “I don’t feel hopeful. I see the death of lough Neagh out there in front of me here. I’ve already seen the death of all the species that’s out there, so there’s nothing left. *It’s at a point of no return*” (emphasis added). Some did not feel hopeful about the Lough, as they could not “see anyone jumping to do anything apart from concerned people and people are not being listen to”. For them

“More people need to listen to the environment groups is the only way things will change. The Lough could well be dead in a couple of years and it’s not impacting people now it will when they cannot drink the water in the few years. A lot of people I know think I’m being really pessimistic about this, but I think it’s been ignored for so long, but I’d like to be proved wrong.”

One suggestion was the establishment of something like a ‘Lough Neagh Clean Water Foundation’ who could take government to court over failures to ensure high water quality. Another idea was to turn the Lough into a ‘Marine National Park’, and put footpaths all the way around the Lough. This was suggested not simply for amenity and tourism/visitor benefit but on the basis that if the public don’t have access they are not seeing/getting the benefit of the Lough, but it also makes it easier for polluters to pollute. However, “If there are hundreds of eyes on this the pollution will not happen”. This suggestion was echoed by another person who said that the Lough needs to be a marine protected zone with no extraction of sand for a couple of years to allow it to recover and revive itself. Another person developed the point about an emergency being declared for Lough Neagh, suggesting this means “you are going to have changing gear to a war footing .. it’s a matter of will”.

A number of interviewees pointed out the tourist potential of the Lough and the economic, employment and social benefits of this. As one of the interviewees noted “The Lough is our ‘Great Lake’, yet it not seen as such”, noting that “If that lake was anywhere else the potential would be massive”. Another pointed to the multiple uses of the Lough and the many different groups that could use it from mental health, wellbeing, sport and fitness group, fishing, birdwatching. The said that they should bring back visits and camping trips to Coney island, bringing water taxis to the Lough and pointing to how successful Lough Erne is and using that as a model. For another, “honestly Lough Neagh is such a vital part of Northern Ireland, so much potential, tourism, economy, recreation... Its same size as Malta”.

A few interviewees noted the missed opportunity of not connecting the Lough to waterways in the rest of Ireland which would enable people to travel by boat from the Lough to the Shannon or Dublin, and create a whole new tourist offer that would help bring people, interest and money to the Lough. One talked about the possibility of being able to “travel from one end of Ireland to another”, while another spoke about developing something like the ‘Wild Atlantic Way’. One interviewee pointed out how the small example of the investment by ABC council in facilities in Ballyronan that has created new businesses and brought more people to come and visit, enjoy and spend money in the community. Another highlighted the Lough’s status as “a world class fishing resource”, but that was “not looked after”, and a number of interviewees mentioned not only the eels but the Dollaghan trout which is unique to the Lough.

For others there was hope with some pointing out that the “Lough needs stewardship and care” and the natural stewards who should be involved in that care and management are the “people who are involved with in the Lough on a day and daily basis”. In this way better relations would

exist between the Lough and people and “the relationship needs to be there for *her voice to be heard correctly*...just the same as any relationship” (emphasis added). Many were confident in the resilience of natural systems of the Lough to recover, pointing out that, ““*If you keep hitting something, the way to make it better is to stop hitting it*. Nature can do her own work if we get out of the way, if we leave her alone for a while – as she needs room to breathe, space to move and live” (emphasis added). Another said that we need a different politics not just a change of government, while for someone else “We need shake this country on its head”.

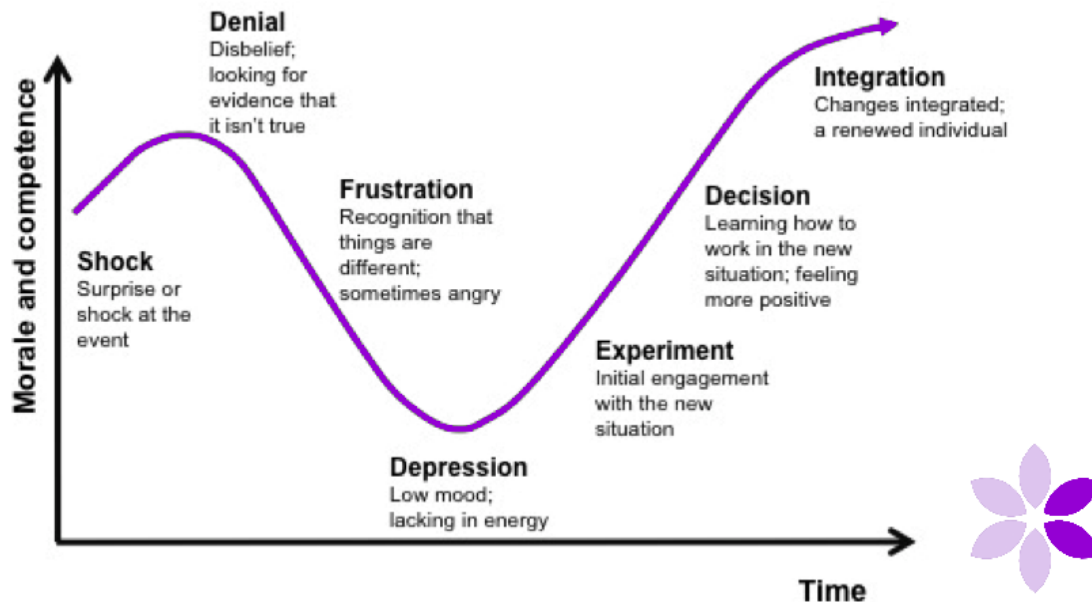
7. Conclusion

“Give the Lough room to breathe”

Here we wish to offer some brief and preliminary interpretations of the interview data and the various discourses, narratives, views expressed and attempt to draw out a couple of themes.

One that stands out is the clear emotional dimension of people’s connection to and attachment to the Lough. Many interviewed spoke with affection, reverence and deep concern for the largest Commons on the island and it was clear they cared deeply for it. There is a sense of love, care, and familiarity, that can be seen in how people personify it as ‘she’, ‘a lady’, and are also grateful for how it looked after them during the lockdowns of the Covid pandemic and their childhoods and their deep family generational links to the place. As is understandable, this love, care and connection to the Lough results in deep feelings of sadness, anger, disbelief, fear and anxiety as a result of the ecological crisis of the blue-green algae that happened to the Lough last summer. What people we interviewed expressed in terms of their emotional reaction to what has happened to the Lough can be mapped to the Kübler-Ross Change Curve (though perhaps its original term the ‘Kübler-Ross Grief Model’ is more apt in this case). This model captures how most people react to change, particularly perceived negative events and changes, such as the ecocide of Lough Neagh. Terms such as ecological grief, ecological distress, and ecological trauma could also be used to describe some of the emotional and psychological experiences some of the participants were experiencing. The stronger and deeper the connection to the Lough the stronger and more profound the emotional and psychological distress each person will experience, with fishermen, open water swimmers and locals being the most likely to be impacted by these adverse and painful psychological and emotional responses, all of which are normal and healthy reactions and responses to ecological disasters and crises.

The Kübler-Ross change curve



Most people interviewed, indeed perhaps all of us with an interest in what is happening, what has happened, and why might happen to Lough Neagh are still on the left-hand side of the curve given how recently the crisis has happened (even though as the interviews demonstrate, many people have been away of problem building up for some time). What was clear however from the data was that none of those interviewed had fully integrated the crisis and it is expected that the grief will continue and potentially intensify and worsen if the pollution continues and the algae blooms continue to impact the health and accessibility of this water source and commons. There was also a pervasive and concerning theme of depression with regards to governmental and departmental action being taken to protect and preserve the Lough, therefore indicating that their health and well-being is being compromised by the ecological crisis and further compounded by the region's complex political landscape, and the lack of faith by citizens in our government to protect the Lough and address the dangerous levels of pollution and causes of the algae blooms. There was little hope amongst those interviewed that things would improve and that would impact future levels of ecological distress, trauma and grief, and probably anger.

In the summer of 2023, there were international headlines of how Lough Neagh was 'dying in plain sight' and this report explores the emotional impact of those closet to this ecosystem and while the Lough is not dead, the health of the ecosystem and those who live around it has been

greatly and adversely impacted for some of the reasons noted and several significant themes emerged as a result of this work.

There is a theme of ‘bodies’ running through what people said to us. ‘Bodies of water’ the Lough and rivers on the one hand and the government ‘bodies’ set up to protect them on the other. There is clearly a deep sense for people that the social contract here has been broken and that government bodies are not protecting the ‘bodies of water’. Interestingly, one interviewee said that people can protect the Lough if “there’s a body of people formed”. So perhaps there is hope that this newly formed body, made up of those we’ve interviewed, but others like open water summers, anglers, fishermen, environmental groups and the community-based ‘place-protectors’ that have emerged to fight for the Lough, could be the missing body to re-connect the other two. And this might be done as another interviewee so eloquently put it that “There has to be an ongoing programme of concern”. So, we need a concerned body of people to protect, manage and restore Lough Neagh.

The Lough needs to heal and so do the people most impacted and who are most impacted by the ecological crisis of the Lough. For that to happen Lough Neagh must be protected from pollution and for that to happen she must be given room to cover from what has happened and all those who depend on the lough for their livelihoods, leisure and wellbeing must be consulted and supported. We hope this report will be used to ensure that events like the summer of 2023 are not considered to be our ‘new normal’ and that more is done to protect the largest marine commons on the island of Ireland from dying in front of our eyes.