



NC'NEAN

SUSTAINABILITY AND IMPACT REPORT

The information in this report refers to data from April 2022-March 2023.
(Sustainability reporting and carbon footprinting requires a full year of data
collection, plus many months of analytics and certification processes).



CONTENTS

Intro	2
Section 1: The stuff you absolutely need to know	3
Section 2: Carbon footprint	4
Section 3: Sustainability isn't just about emissions	9
References	16

MADE BY NATURE NOT BY RULES

Our mission is to change the way the world thinks about whisky from Scotland. To create light and delicious spirits which can exist in harmony with this planet we call home. Our name, pronounced Nc-nee-an, is an abbreviation of Neachneohain, the Queen of Spirits in ancient Gaelic mythology. She was a fierce protector of nature and a lover of all things wild. Never afraid to walk her own path. She is our guiding star and we try to follow her ethos in everything we do, which means sustainability always comes first. Now more than ever, our earth needs us, so this report outlines all we are currently doing to protect our planet and its people, how we've improved since last year and what we plan to do in the future.

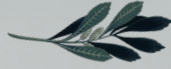


PREVENTING THE RISE OF 2°C

2023 became the first year on record for global average temperatures to reach 1.5 degrees above pre industrial levels.¹ This is a stark reminder that climate change will wait for no woman. Eight years ago when the Paris agreement (the global pact which brings countries together to reduce emissions) was drafted, the goal was to prevent a 1.5 degree rise. Since this has now been exceeded, we are now looking at preventing a 2 degree rise. When will it stop? The point at which the temperature will stop rising is not defined by when we stop emitting, but by the overall amount (in tonnes) of greenhouse gases in the atmosphere. This means we all have to do as much as we can as quickly as we can, by choosing low carbon options wherever possible and challenging other people to do the same.

IN SUMMARY

SECTION 1



THE STUFF YOU ABSOLUTELY NEED TO KNOW

NET ZERO

Verified net zero carbon emissions from our own operations (scopes 1 and 2).

Our distillery is powered by 100% renewable energy.

In total, inclusive of our scope 3 supplier emissions, this year we emitted 2037 tonnes of CO₂.

CERTIFIED ORGANIC

Our barley is grown on mixed farms using certified organic methods.

Every bottle of whisky that is purchased supports one square metre of biodiversity and soil health through farming.

COMMUNITY

Local employment at the distillery has increased by 92% since 2017.

46% of our supplier spend came from within 100 miles of the distillery.

B CORP

In January 2022 we became certified as a B Corporation, putting our planet and all of us who call it home, on an equal footing with profit.

We were delighted to receive an incredibly high score of 135.6, which is the highest score within the spirits industry globally.

CHARITY

As part of our B Corp certification commitment, we donate 1% of revenue to charity every year. These charities include our local community trust and sustainability projects.

WATER FOOTPRINT

We continually recycle 100% of our cooling water; and use 11.6 litres of process water to make one bottle of whisky.

CARBON FOOTPRINT

SECTION 2

WHY ARE WE REPORTING?

Nc'nean is a protector of nature. We are extremely lucky to be located in an area of the world which has outstanding natural beauty, and this is the everyday motivation behind wanting to preserve, conserve and enhance this land we inhabit.



WHAT IS A CARBON FOOTPRINT ANYWAY?

A footprint is the total amount of fuel used in the course of business operation, expressed in 'tonnes of CO₂e'. This is the volume of emissions of greenhouse gases that are created from using that fuel. Carbon dioxide (CO₂) is the most abundant of these, but there are others which also have global warming potential, to a lesser or greater extent, so to make it easy to understand the total impact, all the emissions are counted together as 'carbon dioxide equivalents' and that's why we have the little 'e'!

A tonne is a pretty abstract measurement for a gas, so to put it into context you would need to burn 400 litres of diesel or 500 litres of petrol to release 1 tonne of CO₂e into the air.



Or to make things simple - a whole plane's return journey from London to New York emits around 300 tonnes of CO₂ equivalent (CO₂e) into the air!²

OUR NET ZERO JOURNEY

THE NC'NEAN CARBON FOOTPRINT

Our footprint represents all of the emissions that are created by us and those created in our supply chain up to the point that our spirits are purchased from us. This is known as a 'cradle to gate' footprint. Our 'gate' is not physically at the distillery (because we are far too remote) - we use a distribution warehouse, so we have included the transport emissions to get our spirits there. More detail about our [carbon footprint can be found here](#).

2037 TONNES OF CO₂e - OUR TOTAL FOOTPRINT IN 2022 WHICH IS MADE UP OF TWO ELEMENTS...

DISTILLERY OPERATIONS

18.5

TONNES

Scopes 1 and 2: Residual emissions from our physical site, including our tractor, forklift, electricity, and our biomass boiler.

SUPPLY CHAIN

2018.5

TONNES

Scope 3: Emissions from the cultivation, manufacturing and transport of all raw materials, packaging and products, staff travel, site waste, and our new warehouse build project.

MINUS



MINUS

18.5

(TONNES OF CARBON REMOVED VIA OFFSETTING WITH HIGHLAND CARBON)

2018.5

(TONNES OF CARBON REMOVED VIA OFFSETTING WITH HIGHLAND CARBON)

EQUALS



EQUALS

DISTILLERY OPERATIONS
(SCOPE 1 AND 2)

NET ZERO

SUPPLY CHAIN
(SCOPE 3)

CARBON NEUTRAL



WE ARE NET ZERO NOW

Ahead of the curve. In Scotland, the target set by the government is for the country's emissions to be net zero by 2045.² The Scotch Whisky Association want all their member distilleries to be net zero for scopes 1 and 2 by 2040.³

The reason people (governments and businesses) report their emissions is so they can see how much they need to reduce them. We all need to reduce our emissions as much as we can, but removing them entirely isn't always possible. What can't be avoided can be offset by buying credits that represent 1 tonne of CO₂e removed from the atmosphere. Our credits are generated through protecting biodiverse tropical rainforest. Trees absorb CO₂e as they grow, and it's locked away in its biomass. In fact, half of a tree's wood is made up of carbon! By preventing deforestation we allow forest to keep growing and keep storing carbon.

NET ZERO⁴

GETTING AS CLOSE TO
ZERO EMISSIONS AS
POSSIBLE AND REMOVING
THE REMAINDER OF THE
CO₂e IN OTHER WAYS.

CARBON NEUTRAL⁵

OFFSETTING A CARBON
FOOTPRINT WITHOUT
REDUCING EMISSIONS
BEFOREHAND.

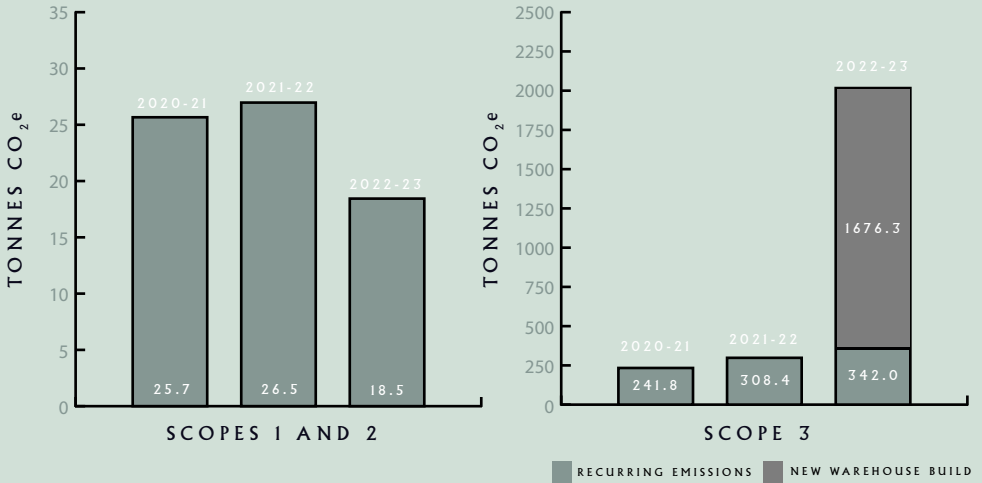
WE ARE VERIFIED NET
ZERO CARBON EMISSIONS
FOR SCOPES 1 AND 2
BY ENVIRONMENTAL
STRATEGIES LIMITED

[Click here to see our certification](#)

WE PURCHASE OUR
CARBON REMOVAL CREDITS
FROM HIGHLAND CARBON

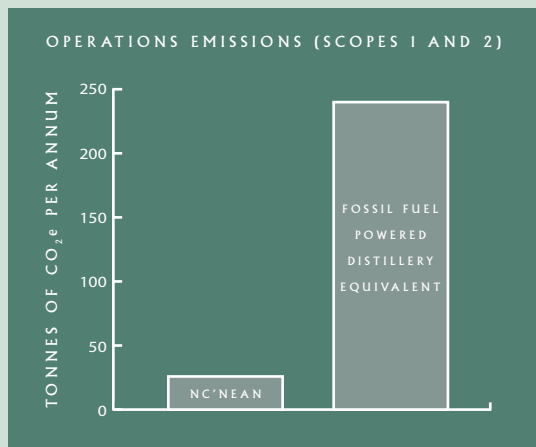
[Click here to see our certification](#)

CARBON FOOTPRINT VS PREVIOUS YEARS



HOW DOES OUR FOOTPRINT COMPARE WITH OTHERS?

The emissions that we create from our distillery operations are very low thanks to our biomass boiler. It produces renewable heat, plus we purchase a small amount of zero carbon electricity from the grid. In the spirit of net zero we also offset the remaining on-site operational emissions, and monitor our energy consumption so we can assess how to improve our energy efficiency.



PRODUCT CARBON FOOTPRINT

2022



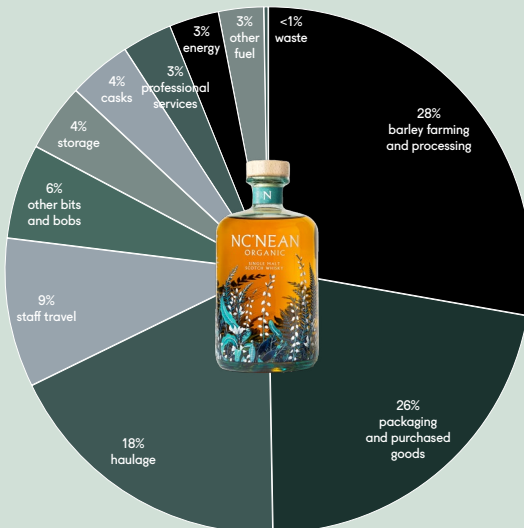
2023



As you can see, our overall footprint of our bottles has gone up a lot this year. This is mostly due to the fact we had a significant building project on site - our new warehouse and bottling hall, allowing us to more efficiently bottle our products and expand our local employment. Without the warehouse build the footprint of our whisky bottle would have been 1.91 kg CO₂e, only a slight increase on last year. On the positive side, our carbon footprint for our scopes 1 and 2 emissions has gone down due to fuel efficiency on site. A great achievement.

EMISSION BREAKDOWN PER WHISKY BOTTLE

Not including our warehouse and bottling facility build project



The pie chart on the left shows our emission breakdown per bottle of whisky, not including the emissions created by our recent warehouse and bottling facility build project. These emissions are very large and would have distorted the breakdown.

IT'S NOT JUST ABOUT EMISSIONS

SECTION 3

B CORP

Putting our planet, and all of us who call it home, on equal terms with profit.

In January 2022 we officially became a B Corporation, joining only one other Scotch whisky distillery at the time. In April 2024, we remain the highest scoring B Corp in the spirits industry globally, with a score of 135.6. The B Corp certification is awarded to companies who have met extremely high social and environmental standards, representing their commitment to goals outside of simply trying to make money. We will re-certify in 2024 with the aim of improving our company's performance over five key operational areas: environment, community, customers, workers and governance. We wrote a blog on why we think all companies should go through the rigorous certification process, which you can read by [clicking here](#).

OUR SCORE:
135.6
VERIFIED IN
JAN 2022

Certified



Corporation

WHAT WE'VE DONE SINCE CERTIFYING IN 2022

ENVIRONMENT 73.3

- Introduced bees to the distillery.
- Diverted 99.94% of our waste from landfill.

COMMUNITY 16.9

- Donated 1% of our revenue to charity, split between environmental advocacy, local community trust and humanitarian aid.
- Increased spend with local suppliers by 14% compared with previous year.

CUSTOMERS 2.9

- Published full consumer reviews on our website with Feefo.
- Reduced post consumer waste from flagship whisky sales by 21% compared with previous year (via pushing retailers to use fewer gift boxes).

WORKERS 24.3

- Increased local employment by 22% this year which is a 92% increase on the baseline local employment.

GOVERNANCE 18.1

- Created annual board reviews of environmental and social KPIs and in-depth discussion of strategy.
- Introduced a share option scheme for staff.

WHAT WE ARE CURRENTLY DOING TO IMPROVE OUR OPERATIONAL AREAS AND REDUCE EMISSIONS

The majority of emissions are in our supply chain (scope 3), which are much harder to reduce because they are not created by us. Along with further reducing our scope 1 and 2 emissions, the plan for the next seven years is to work with our suppliers and encourage them to reduce their own emissions, in turn bringing our supply chain footprint closer to net zero. Here are some of the things we are doing to help us hit that target, and to help us maintain our high score when we recertify with B Corp this year.

WHAT WE ARE GOING TO DO THIS YEAR

ENVIRONMENT

- Move Botanical Spirit into 100% post-consumer recycled glass.
- Explore new technologies that will help us turn waste into a resource.
- Replace diesel with low emissions HVO fuel in our tractor.

COMMUNITY

- Further increase spend within local supply chains (suppliers within 100 miles of the distillery).
- Further increase local employment and staff volunteer hours on local community projects.

CUSTOMERS

- Incorporate customer feedback into team discussions and product design.
- Screen all major suppliers on environmental and social performance by 2025.

WORKERS

- Create flexible working environments for staff.
- Develop health and well-being policies to support staff in times of difficulty.

GOVERNANCE

- Include social and environmental goals within manager's performance reviews.

Certified



Corporation

NC'NEAN



OUR ORGANIC FARMERS

Organic farming has many benefits, including protecting biodiversity, water and soil quality, which is why we choose to make our whisky from barley that's been farmed organically. Alongside steering clear of pesticides and artificial fertilisers, our farmers also take a very holistic approach to their farm management and include the use of renewable energy, and the rotation of cereals with cover crops and grazing animals to keep soils healthy.

OUR ORGANIC BARLEY

280 kg CO₂e
(PER TONNE)

REGENERATIVE AGRICULTURE

Regenerative farming is a practice which aims to actively improve land, water and biodiversity through agriculture. The methods used vary depending on what is being farmed, and whether or not the farming is done organically, but one of the key principles is to increase the amount of organic matter present in the soil. Organic matter is basically all the things that live and then rot down within the soil which creates a continuous cycle of nutrients that plants need to live. As plant roots rot down, carbon that has been absorbed by the plant is locked into the soil. The key to increasing the amount of carbon (organic matter) in the soil is to increase plant growth and avoid disturbance.

With the conventional non-organic practice of applying pesticides, the living things that help create soil organic matter are killed off. Many farmers then additionally disturb the soil by ploughing or tilling (digging / churning up the soil). This causes the carbon in the decaying matter to be exposed to oxygen in the air and released as CO₂. This year our farmers have started to include 'carbon sequestered' in pasture and biomass on their farms as part of measuring their carbon footprint. This is a key step in understanding how land is being regenerated, and will help to bring the carbon footprint of our barley down.

PACKAGING AND CIRCULAR ECONOMY

There are many elements to product packaging, all of which have different carbon footprints, are made from different materials and have different disposal methods. We've broken down our packaging below which provides examples of how our whisky packaging is reducing our scope 3 emissions, reducing the need for sourcing virgin materials and reducing chemicals, all whilst giving consumers easy options for recycling or composting at home.

NATURAL CORK

Natural cork stopper with a wooden top. Cork is an amazing resource as the thick bark can be stripped every decade to extract the cork without damaging the trees. Both the cork and the wooden top will degrade in your home compost.

RECYCLED GLASS

100% post-consumer recycled glass, reducing the carbon footprint of each bottle by 40% compared with virgin glass. Recyclable in household recycling.

REFILLS

In our first year of offering these at our distillery shop, 14% of bottles of our flagship whisky sold were refills. This saved 38kg CO₂e. All the money from the sale of refills and "wonky bottles" (bottles that don't quite make the grade and are sold for upcycling) went to Ewen's Room - a mental health charity based close to the distillery.

BIO TAMPER

As opposed to plastic, we've opted for a biodegradable alternative made from renewably sourced wood pulp. You can compost this in your home compost with your stopper.

NON-TOXIC INKS

We print directly onto the bottle using water based inks which are non-toxic and considered much better for the environment.

REDUCING EXCESS

This year, 33% of our bottles were sold without the gift tube compared with 11% last year. We offer all consumers and customers the option to buy without, and we are working with key retailers to improve this going forward. The tube itself is made from 90% recycled cardboard and can be recycled in household recycling.

DISTILLERY WASTE

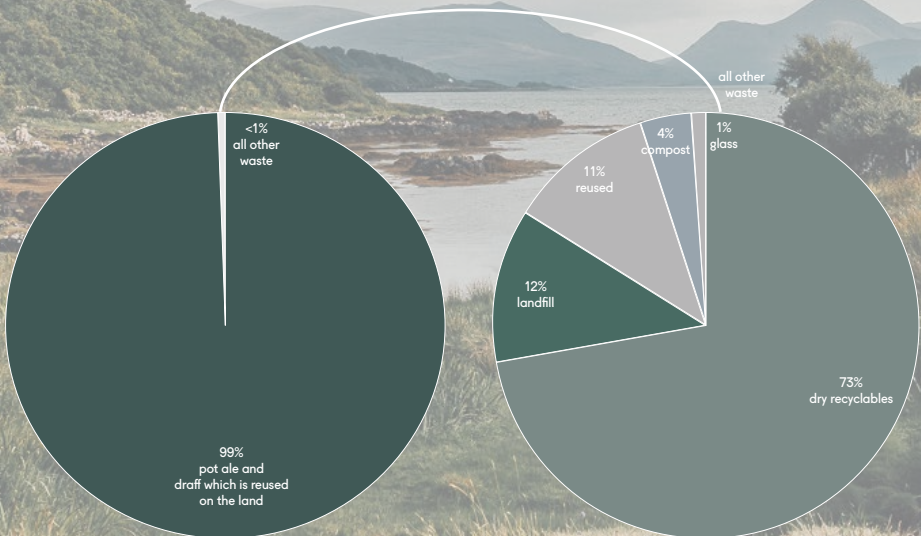
We are directly responsible for protecting our immediate environment and we avoid using chemicals that have a negative environmental impact where possible. We only use alternatives like Ecover or Bio D in our visitor areas, and we have switched out one third of our caustic (a chemical alkaline cleaner) which we use for sterilising our distillery equipment, and replaced it with an Enzybrew (an enzyme cleaner) which is completely harmless to the environment.

REDUCE, REUSE, RECYCLE

We are the only living thing on this planet that creates waste. We make, buy and dispose of things that don't readily break down in our environment – whether that's physical waste like plastics or chemicals that end up in our water. We believe that everything should be treated as a resource rather than as waste, so we orientate our distillery operations to remove waste altogether and make sure that we reuse, compost or recycle as much as we possibly can. In 2022 we reused or recycled 99.94% of our waste, putting only 684kg of waste into landfill. Our goal is to make sure that we maintain or improve on that figure as the company grows.

ONLY
0.06%

OF OUR WASTE
WAS SENT TO
LANDFILL IN
2022 / 23



WATER

The most valuable resource on the planet. The whisky industry uses a lot of it to make products that we put on the shelves, and with that usage comes a responsibility to ensure that we are using it wisely. In total, every year we need approximately 33 million litres of water to run our small distillery. 90% of this water never touches the whisky, it is used just to cool down the alcohol as it comes off the stills. So, to make our system as water efficient as possible, we collect rain water in a pond and use this in a continuous loop in and out of the distillery. The water goes into the stillhouse cold, comes out warm, and is then cooled down again by our natural Scottish climate and its plentiful rainfall. It also saves us "extracting" 30 million litres of water a year from other local water sources like rivers. Our water footprint in 2023 was 11.6 litres of water per bottle of whisky, or 36 litres / LPA (litre of pure alcohol).

The water that we do take from our environment comes from our spring and we use it to make our whisky, to make steam in our boiler, and for everyday use at the distillery. Going forward, we also want to measure the water usage in our supply chain, and establish a verified water footprint by 2025.

WE RECYCLE
100%
OF OUR
COOLING WATER

BIODIVERSITY

We use organic barley because it supports healthy biodiversity, but we also want to enhance the concentrations of local wildflowers around the distillery and pollinator friendly plants in our courtyard. This year we have harvested our first batch of honey from our bees, and in the autumn we are growing our colony from two hives to three. The bees are also being moved to their new home out on the hill behind our warehouses to make the most of the heather!

THE HONESTY BOX

We want to be as open and transparent about sustainability as we can, so here are some things that we feel it is important to include:

Our 'cradle to gate' footprint is not the full picture – but it's a really good start. Once we have a better idea of our distribution lines and when our consumer base is more established, we will be looking to expand this to 'cradle to grave'. This means taking into account all transport to the end consumer and also the energy used in disposal.

Not all our products have a high recycled footprint. Our Botanical Spirit bottle is currently made from flint glass, which has less than 35% recycled glass content. At the moment it's a small percentage of the products we bring to market, but we are looking to transition over to recycled glass by the end of March 2025 (end of this financial year).

Getting to net zero across all scopes is going to be hard, and while we may see reductions in some areas of our footprint we are going to see growth in other areas, as well as growth overall until more suppliers focus on reducing their own emissions. We will always strive to work with the best suppliers we can to make sure that we get our scope 3 footprint down as quickly as possible.

In the meantime we will continue to offset our emissions with carbon removal credits, not because we think that it is the answer to the climate change problem and not because we want to pay for the emissions created by other companies, but because it is important that we continue to support efforts to preserve and protect tropical rainforests and the local communities that they support.

REFERENCES

1. BBC news report on EU Climate service report on the global warming over 1.5 degrees Celsius: <https://www.bbc.co.uk/news/science-environment-68110310>
2. Scottish government climate change targets: <https://www.gov.scot/publications/open-government-action-plan-2021-to-2025-commitment-4-climate-change/>
3. Scotch whisky association targets for net zero scopes 1 and 2: <https://www.scotch-whisky.org.uk/insights/sustainability/>
4. 2022 ISO International workshop agreement guidelines on net zero: https://www.dropbox.com/s/46xtg8az5466nvl/IWA_42_2022%28en%29_pdfcolor.pdf?dl=0
5. There are varying definitions of 'carbon neutral' but we understand that net zero is distinguished from carbon neutral by meeting both of the following criteria.
 - The type of offsets used balance the footprint - for net zero the footprint must be offset by removal credits but for neutrality the offsets can be avoidance credits i.e., you can pay someone else to not emit CO₂
 - Footprint reductions - there is no set level of ambition in terms of emissions reductions to be carbon neutral across your footprint. The 'spirit' of net zero is to achieve significant reductions in emissions in addition to offsetting.Although we have ambitions to reduce our scope 3 footprint, we have not been able to quantify those reductions yet so we cannot be net zero across all scopes.