

Mindful Fashion New Zealand



CLIMATE ACTION GUIDE

Part 3

Reduction Strategies

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REDUCTION STRATEGIES

Understanding your emissions

Once you've calculated your organisation's GHG footprint the next step is to work out where you can make reductions.

Analyse your emissions summary. You can use the template on the Data Collection Spreadsheet <Summary> tab to input your emissions into the table and generate a graph that illustrates the emissions from each activity.

We know that for many businesses travel and freight will be a significant part of their organisational emissions. We recommend using the calculator to break down travel and freight emissions for each mode of transport eg air, sea, road. This may help you identify specific areas to prioritise for reduction strategies.

The next step for your business is to:

1. Create a plan outlining strategies to reduce your carbon emissions.
2. Set targets that you can track your progress against.

Reduction strategies, tools and resources

Create an action plan by outlining your strategies, and set targets to give you something to aim for. Your plan should include:

- Your baseline year measurement across each scope and category;
- Categories you have identified as priority areas for reduction;
- Targets you are aiming for;
- Actions you have identified to make reductions, with your timelines.

Identify your top 5 emissions sources as this is where you can make the most impact. Then prioritise where you can make the most impact with the lowest effort. A useful guide is the following:

PILLAR 1	PILLAR 2	PILLAR 3
Reduce your own emissions: • Prioritise, plan and reduce Scope 1 and 2 emissions (fuel consumption, electricity)	Reduce value chain emissions: • Prioritise, plan and reduce organisational Scope 3 emissions (travel, waste, freight)	Further reduce value chain emissions reductions: • Plan for and implement Initiatives that may require some capital investment to reduce emissions.
Short term	Short - Medium term	Medium - Long term

Focus on emissions sources where you have direct control, often your scope 1 and 2 emissions sources, for example Electricity consumption and Fuel consumption. Start by implementing ‘low hanging fruit’ initiatives that do not cost anything (cost neutral) and potentially save money (cost negative).

You can use the **Ease/Impact Decision-making Matrix** (Appendix 1) to help map out which areas to prioritise. Consider the following types of intervention:

- **Behaviour change** - Identify where can you change behaviour easily, eg. reduce waste, packaging, travel habits.
- **Operational/Policy change** e.g maximum trips per year, minimum numbers in vehicles, supplier considerations. e.g energy supplier, equipment suppliers, maintenance contractors (where are they coming from? Can someone do it locally?)
- **Infrastructure change** - Equipment/Technology Changes/ Upgrades – vehicles, onsite energy generation.

See Appendix 2 for common reduction strategies for Scope 1, 2 and 3 categories.

Identify strategies that apply to your organisation, and prioritise the implementation of these based on impact and ease. Once you have set targets, use the strategies to help you achieve them. Consider tracking progress on a monthly basis to monitor progress.

SETTING TARGETS

Target setting and having clear reduction goals are critical to reducing your emissions. Climate action is a long-term endeavour, so targets give you a measuring stick to report progress against each year to ensure you're on track. Setting company wide targets will also help ensure that climate is kept on management's radar and factored into relevant decisions.

Types of targets

1. **Absolute targets** - refer to a target that aims to reduce GHG emissions by a set amount in a future year compared to a baseline year. Eg. reduce overall emissions by 2025, 4.7% against baseline year.
2. **Intensity targets** - a future reduction in emissions that has been normalised to a business metric when compared to the same normalised business metric emissions in a base year. That metric can be anything from clothing produced, to total revenue.

Some companies choose to use both absolute and intensity targets. We suggest to start with setting an absolute target as it ensures your overall emissions are actually reduced and is thus easier to communicate and understand.

Target Boundary

The target boundary defines what is covered by a GHG target. It can be identical to the inventory boundary, or it may only address a subset of sources, such as:

- Which geographical operations;
- Which direct and indirect emission sources.

Target Base Year

Most GHG targets are defined as a percentage reduction in emissions compared to a target base year. Usually the target base year will be identical to the inventory base year.

Target Completion Date

As with the target base year, you are also free in choosing a target completion date. It is, however, recommended for targets to cover a minimum of 5 years and a maximum of 15 years. Many industry initiatives and brands, for example the Fashion Industry Charter for Climate Action, have defined 2030 as completion date for their targets.

In the context of climate change, the targets we need to achieve collectively to limit global warming to 1.5° C, and hence avoid the worst effects, are defined by science. Human-caused GHG emissions need to fall by about **45 percent from 2010 levels by 2030**, and reach 'net zero' around 2050. Here is an example targets from Kathmandu:

- Reduce total Scope 2 emission intensity by 15% per store by 2025, relative to base year.
- Reduce absolute air travel emissions by 5% by the year 2025, relative to base year.

Science-based targets

Targets are considered ‘science-based’ if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

SBTs are thus based on an objective and scientific evaluation of what is needed, in contrast to what is achievable by a company. SBTs need to be assessed and approved by the Science Based Target Initiative before they can be publicly announced as such.

The Science Based Target Initiative has released sector guidance for the apparel industry (see resource section below), which shows that to meet a 1.5°C pathway, reduction targets should be set at a minimum of **4.2% annual linear reduction**.

Science based targets for SMEs

The Science Based Target Initiative has also released a streamlined target validation route for SMEs, to immediately set an SBT for their Scope 1 and 2 emissions by choosing one of several predefined target options (see below). SMEs are not required to define a Scope 3 target however they must commit to measure and reduce their Scope 3 emissions.

Target Options for SMEs

- 1.5°C aligned option - 50% reduction of absolute Scope 1 and Scope 2 emissions by 2030 from a 2018 base year, and measurement & reduction of Scope 3 emissions.
- Well-below 2°C option - 30% reduction of absolute Scope 1 and Scope 2 emissions by 2030 from a 2018 base year, and measurement & reduction of Scope 3 emissions.

SBTi provides guidance and criteria for science-based climate change targets and validates company targets. The website includes several essential resources including the SBTi criteria, an Excel-based target setting tool, and a detailed manual for companies setting targets.

Resources & Tools

- [SBTi: Sector guidance for the apparel industry.](#)
- [SBTi: Science-Based Target Setting Tool](#)
- [SBTi: More information on the SME validation route](#)

Examples of targets set by apparel companies

Ganni

- 50% absolute reduction in overall CO2 emissions by 2027 (from a 2021 baseline).

Reformation

- Reduce Scope 1 & 2 emissions 46% by 2030 (absolute - from 2019 baseline).
- Reduce Scope 3 emissions 55% per unit revenue by 2030 (economic intensity - from 2019 baseline).

VERIFICATION, CERTIFICATION, OFFSETTING & INSETTING

The manufacture of a physical product and most activities inevitably leave a carbon footprint which is impossible to eliminate using internal measures only. No matter how hard your business tries it can never reach carbon neutrality as an organisation, or for a certain product or activity (e.g. air travel), with reduction measures alone.

Therefore additional solutions are needed to balance emissions that cannot be eliminated. Carbon offset credits are one tool for achieving such reductions. Due to their ease of use and cost-efficiency, it can be tempting for companies to rely on carbon offsets as primary means to meet their emission reduction targets, instead of identifying and investing in internal reduction measures. However this approach would fall short of our overall global climate targets. There is broad agreement that the primary focus of every company must first be on reducing GHG emissions directly and dramatically in line with global mitigation goals, and then considering offsetting the remainder.

Verification

Verification provides a confirmation that your greenhouse gas calculations have been completed correctly following the requirements of the international standards. Verification is completed by a third party on the data you provide to them. Having your inventory verified can give you certainty that you have measured correctly, and a degree of confidence when setting targets and communicating any emissions reductions activity.

Certification

Many organisations offer certification programmes. Certification generally requires an audit to verify your inventory and footprint is accurate and complete. You can then optionally choose from a selection of carbon credits to offset your emissions to meet certification requirements.

Offsetting

A carbon offset broadly refers to the reduction, avoidance, or removal of greenhouse gas emissions. Carbon offsets invest in projects that help counteract greenhouse gas emissions that have already taken place. Offsetting is achieved when you buy a unit of CO₂e (a carbon credit) and 'retire' it against your emissions.

Insetting

Carbon insetting is a mechanism to reduce emissions while driving business value. It uses organisational investment to promote sustainable practices and reduce your company's carbon footprint within your own value chain. As explained by the International Platform for Insetting, insetting is the implementation of nature-based solutions such as reforestation, agroforestry, renewable energy and regenerative agriculture. Some insetting activities also improve the livelihoods of indigenous communities as a result.

For example, Ganni is working directly with suppliers to evaluate emissions hotspots and invest in ways to mitigate those at the source, rather than through offset projects elsewhere. "We stopped compensating for our carbon footprint. We put aside that money and saved it up for investments in bringing down the carbon footprint of our supply chain, making actual reductions along our supply chain," says founder Nicolaj Reffstrup.

YEAR 2 AND BEYOND

Once you have identified priority activities, started to implement changes to reduce emissions and set annual targets for emissions reductions, the next step is to monitor progress to ensure you are on track to meet targets. See Climate Action Roadmap for Businesses (Appendix 3).

Calculate your GHG inventory every year using the same boundary (at a minimum) to ensure you are making progress to meet reduction targets. You should endeavour to broaden the boundary of the inventory to include further value chain categories over time to account for the full extent of your organisation's emissions.

Scope 3 value chain emissions

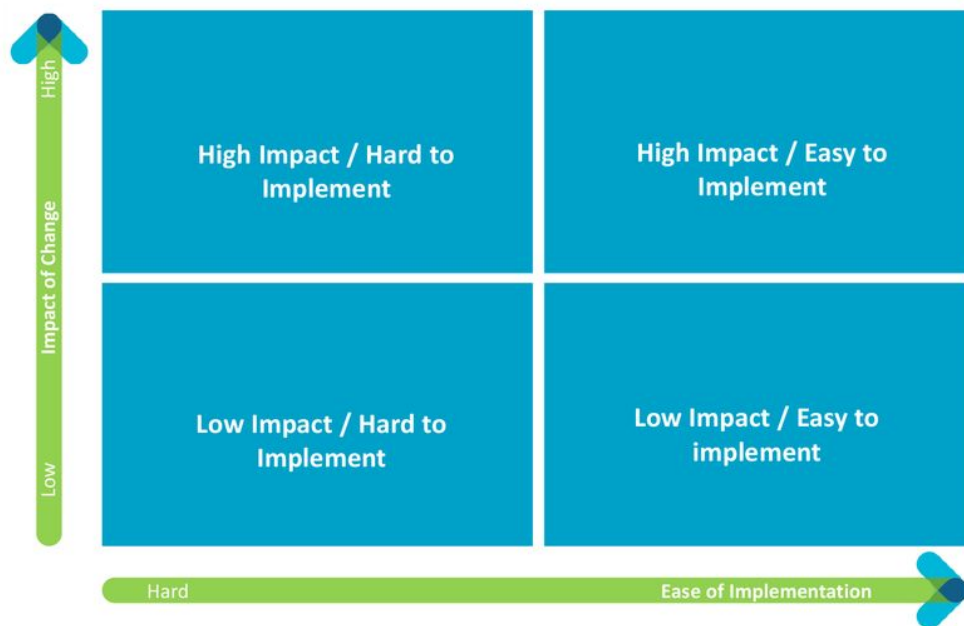
It is widely accepted that value chain emissions are the most significant contributor to the footprint of an apparel company, and that these emissions mainly occur in raw material extraction, processing and production. However emissions from these activities can be challenging to calculate accurately due to the complexities of gathering accurate data for individual supply chains for each fibre and material. Companies should pursue measures to gather data from their textile supply chains, or use estimated LCA data in order to calculate as accurately as possible to get a broad understanding of impact scale. At the same time, it is recommended to map fibre/material usage volumes and immediately start shifting materials to low impact and recycled versions.

The [Scope 3 Evaluator](#) is a free tool from the GHG Protocol and Quantis that allows users to estimate emissions for each of the 15 GHG Protocol Scope 3 categories. Companies can use the tool to identify which areas to pursue a more accurate inventory and where to focus reduction efforts.

Appendix 1

EASE / IMPACT MATRIX

Use the Matrix to map out reduction strategies, and identify which are priorities over short/med/long term.



Appendix 2

Emissions Reductions Strategies For Organisational Footprints

Scope 1 Reduction measures - Fuel consumption

In general, organisations can reduce vehicle-related emissions by reducing the kms travelled by employees for business purposes, and shifting away from fuel-based vehicles. For example, meeting online more, moving your fleet to EVs, encouraging and incentivising forms of transport other than single-occupancy vehicles, use of public transportation, car pooling, and cycling.

Behaviour changes	Encourage/enable staff to use push bikes/e-bikes for commuting to and from work, e.g., through provision of safe and convenient bike storage facilities, shower/changing facilities and cycling clothes storage facilities rather than providing company vehicles and/or car parks.
	Enrol in an electric or hybrid car rideshare service and use rideshare vehicles when the use of a car is necessary. This is an option in larger centres.
Policy changes	Manage mileage, set a CO2e cap, downsize/optimize fleet.
	Encourage/enable staff to use public transport for commuting to and from work e.g., through subsidising public transport use.
	Encourage/enable regular working from home through providing the necessary tools and process to work remotely, such as desk, chair, computer etc.
	Where vehicle travel is unavoidable, use EVs where possible. Find out more at FECA.
Infrastructure upgrade	For staff commuting over distances that exceed pushbike/ebike travel and where public transport/rideshare isn't available, encourage/enable the use of EVs through providing access to EV charging facilities at work.

Scope 2 Reduction Measures - Electricity

Start by implementing energy efficiency measures, as this will also reduce operating costs.

Behaviour Changes	Avoid using heat pumps for air conditioning during summer where possible. Studies show heat pumps are not efficient coolers. Fans and natural ventilation are the most efficient form of cooling.
	Ventilate a room before heating it, this will remove damp air.
	Only heat rooms that are being used. If heaters tend to be left on, install timers.
	Have an energy auditor or electrician to do a complete sweep of your workplace. They will be able to advise on suitable replacements and the cost paybacks.
	Set your hot water cylinder (if you have one) to 60 degrees. This is the temperature that will prevent Legionella and keep your water suitably warm when it comes out of the tap (assuming that it is fit with a thermostat).
	Make energy efficiency a priority at your work. Appliances such as computers left on will use power, so make sure people turn them off overnight/on weekend.
	Switch to providers that are using renewable energy. An example of such a provider is Ecotricity.
Infrastructure upgrade	Install sensors, especially in places that are used intermittently and are prone to having the lights left on.
	All Incandescent bulbs should be upgraded immediately to LEDs. A simple switch from an incandescent to an LED will also save you \$20 a year in running costs.

	Cheapest is not always best - try to buy high quality LEDs so that they will last you the full 15 years of their life span.
	Halogen/sodium/mercury bulbs all have LED equivalents that will save close to 40% of the electricity usage. To find a sufficient replacement that will match your required lumens and fitting, you should always seek advice from a lighting technician/electrician or auditor.
	Fluorescent lights, though still relatively efficient, can be upgraded to LED tubes. This will make most sense in workplaces where the lights are used every day for long periods of time. This upgrade will often require electrical rewiring so if you are having work done to the roof and/or are hiring an electrician to do electrical rewiring anyway -seize the opportunity then.
Policy changes	Develop a policy that commits your organisation to always install the most efficient LED lighting option available and to design your workplace in a way that optimises natural & passive lighting.
	Implement a policy where any new appliance purchases (e.g office refrigerators or heatpumps) will be blue star energy rated. Blue star energy rated appliances will cost more at the beginning, but pay back over time.

Scope 3 Reduction Measures - Freight

Given the combined contribution of upstream and downstream transportation to Scope 3 GHG emissions, it is crucial to find ways of collaborating with suppliers in order to reduce emissions in these categories.

Behaviour changes	Change planning procedures to allow for longer transport times so sea freight and rail freight can be utilised more over air freight and road freight.
	Improve systems to capture freight data metrics. Analyse and consolidate where possible.
	Inform your freight company of your commitments and ensure they record the data you need for reporting.
Policy changes	Have a procurement policy that favours organisations with sustainability strategies i.e. sustainable/electric fleet, measuring their GHG footprint, offsetting their emissions etc.
	Procurement - look at sourcing from local suppliers where possible.
Infrastructure upgrade	Consider the weight of the goods being delivered, is there any way for making the product packaging lighter or to consolidate shipments for more efficient use of space and/or to reduce the number of loads required.

Scope 3 Reduction Measures - Business Travel

Behaviour changes	Improve systems to capture business travel metrics. Analyse travel and consolidate where possible - set targets for staff.
	Avoid the use of air travel and use video/phone calls where possible instead. This may require investing in an upgrade of teleconferencing technologies and/or service plans to enable high quality communications.
	Educate staff on climate impacts of travel options. Encourage/enable staff to use pushbikes/e-bikes for commuting to and from work, e.g., through provision of safe and convenient bike storage facilities, shower/changing facilities and cycling clothes storage facilities rather than providing company vehicles and/or carparks.
	Where vehicle travel is unavoidable, use EVs where possible.
Policy Changes	Use technology to avoid travel where possible.
	Set an “only when essential” flying policy along with an annual flight emissions reduction target.
	Restrict the class of air travel to economy and educate & inform staff on why the economy class policy has been introduced and what it achieves.
	Consider trip limits per year/time period and implement a clear company policy. Eg. Set an “only when essential” flying policy along with an annual flight emissions reduction target.
	Encourage/enable staff to use public transport for commuting to and from work e.g., through subsidising public transport use

Scope 3 Reduction Measures - Waste

Behaviour changes	Educate and internalise the policy of: Reduce, Reuse, Recycling in that order.
	Conduct a waste audit annually. This process helps reveal where waste at your work site is coming from. Waste audits can be a great way to engage your staff members in a learning journey.
	Work to eliminate any single use plastics sold or used on site at your workplace. Sometimes plastics are unavoidable. If you have to use plastics, prioritise plastics grade 1 & 2 that can be recycled in NZ. Ensure that you have best practice bin stations that inform your staff how to treat these plastics – (ensure they are empty and rinsed).

Policy Changes	Set a waste reduction target at your workplace. Establish a green team to oversee the ongoing commitment to reaching these targets.
	To reduce waste brought into your organisation, establish a responsible procurement policy. This may include best practice and ethical purchases of all items/materials: e.g. paper, cafeteria items, refurbished electronics.
	When manufacturing products, adopt the principles of product stewardship/ circular economy and only create responsible products that can be 100% reused or recycled, as high value products in NZ as a priority). This may mean thinking about / changing the packaging you use for your products.
Infrastructure changes	Introduce a full recycling system (including compost) and make sure your workforce are educated on what goes where.

Further Emissions Reductions guidance

- [Climate Action Toolbox](#)
- [EECA](#)
- [Gen Less](#)
- [UNFCCC Fashion Industry Charter for Climate Action - playbook](#)
- [Science Based Targets Institute, sector guidance - Apparel](#)
- [Sustainable Apparel Coalition - Decarbonisation Guide](#)
- [WRI and All - Roadmap to Net Zero](#) (apparel)