

The background of the top half of the page is a photograph of a field of green plants, possibly a vegetable field, with some plants in the foreground showing buds. The image is overlaid with a green geometric design consisting of diagonal lines and shapes.

# 50 SHADES GREENER

Creating action based educational programmes for carbon emissions management to help build a NetZero society.

The purpose of this toolkit is to provide learning collateral and opportunity focused on green jobs and the required skills. How to engage employers in discussions on the topic of green jobs, and how to integrate green skills considerations into existing occupations standards developed by ELMS.

You will see clickable links within this manual for:

- Further learning resources
- Downloadable leaflets you can use to communicate with industries and associations

For more information, visit the Dakchyata website: <http://www.dakchyata-nepal.org/>

**Dakchyata:** TVET practical partnership is a skills development programme, funded by the European Union and delivered by the British Council in partnership with the government of Nepal, to realise the potential of young people who - equipped with the right skills - can contribute to national economic success in the agricultural, tourism and construction industries.

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## WHY SHOULD BUSINESSES BE SUSTAINABLE?

While traditional economists suggested the only goal of business was profit maximization, contemporary economists and entrepreneurs suggest that business has an obligation to the greater good while still maximizing profit.

Paying attention to **environmental, social, and governance (ESG)** issues is becoming increasingly critical for all companies across all industries. In the latest [McKinsey Global Survey](#), 83% of C-suite executives and investment professionals believe that ESG programs will generate more shareholder value in five years' time than they do today. And in [Accenture's research](#) on responsible leadership, companies with high ratings for ESG performance enjoyed average operating margins 3.7 times higher than those of lower ESG performers. Shareholders also received higher annual total returns to shareholders, outpacing poorer ESG performers by 2.6 times.

Simply put, sustainability is a business approach to creating long-term value by taking into consideration how a given organisation operates in the ecological, social, and economic environments. Sustainability is built on the assumption that developing such strategies fosters company longevity.

Furthermore, consumers are now becoming advocates of sustainability and sustainable development and are increasingly demanding that companies have ESG strategies, to align with their own values. Consumers across all generations—from Baby Boomers to Gen Z—are now willing to spend more for sustainable products. Just two years ago, only 58% of consumers across all generations were willing to spend more for sustainable options. Today, nearly 90% of Gen X consumers said that they would be willing to spend an extra 10% or more for sustainable products, compared to just over 34% two years ago. [\(Source Forbes September 2022 report\)](#).

Applying ESG to the framework of organisations may seem like an expensive and time-consuming activity, particularly when the “know-how” is not there. But if we look at some activities of environmental sustainability like resource efficiency, reusing and repurposing materials, reducing waste, etc, we can clearly identify all of them as cost saving opportunities.

Generating savings from our use of utilities and materials, combined with customer demand for sustainability, has created the perfect environment for Profit to be linked to ESG. Businesses that have an ESG strategy will generate more profit and sustain longer in the future.

Finally, as governments and global organisations ramp up their efforts to support sustainable development, [UN Environment](#) has been working with countries' financial regulators and finance sector to align financial systems to the 2030 sustainable development agenda – to direct financial flows to support the delivery of the Sustainable Development Goals.

Simply put, green financing is a loan or investment that supports environmentally friendly activity, such as purchasing environmentally friendly goods and services or building environmentally friendly infrastructure.



Banks are increasingly making more green finance available and accessible to fund green projects, and to invest in businesses themselves to help them become greener. The investment sector, both public and private, are now also demanding for businesses to have ESG strategies in order to invest in them.

While change of any kind is slow and difficult, businesses are more efficient and responsive than most governments or academic institutions, so they can have a greater, faster impact on sustainability and climate change.

## BENEFITS OF SUSTAINABLE BUSINESS

- Gain a competitive advantage from goodwill
- Many consumers prefer green products and services
- Recruit and retain good employees
- Save money from efficiency and waste reduction
- Make money from waste re-generation
- Sustainability is a form of market differentiation
- Become preferred supplier for other businesses
- Change/improve image and brand (Senge et al., 2008).

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## STEPS TO BECOME A SUSTAINABLE BUSINESS

There are many areas of business operations that need to be looked at with a sustainability lens.

### General suggestions:

- Research topics on the Internet.
- Check the advice on <https://www.unglobalcompact.org/sdgs/17-global-goals>
- Network with businesses in the same industry in other nations to learn and share best practices.
- Start small – change one process or add one green job skill at a time.
- Ask customers for suggestions about becoming more sustainable (especially global visitors).

Change is difficult and so business need to view sustainability as an end goal, and not a quick fix. Starting small, adopting green practices one by one, proves to be the best approach. Having a clearly defined ESG policy and action plan, that is time bound and reviewed periodically, will present the best chance for success.

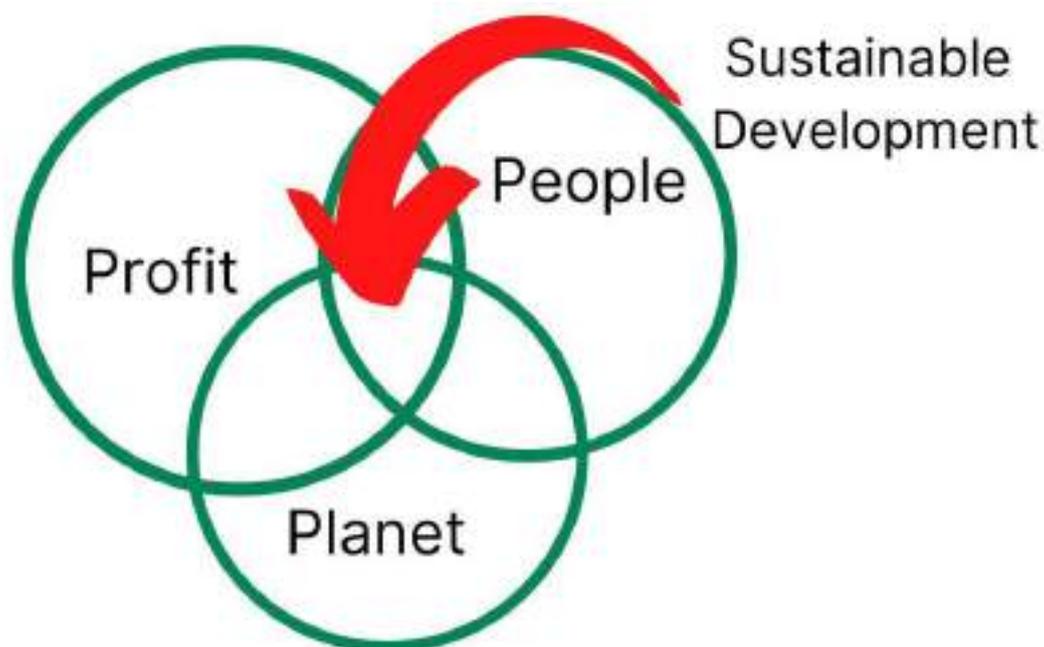
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To ensure transparency, we can apply the following processes to any sustainability strategy:

1. **Measure your starting point** with real quantifiable data.
  - a. **E - environment** we should measure areas like our energy & water use, our waste production, where do our products come from (suppliers).
  - b. **S - social sustainability** we should measure the gender % of the workforce, the % of diversity of our employees, job satisfaction and career development opportunities.

- c. **G – Governance** we can measure how many policies we have in place that protect the natural environment and ecosystems or people, stakeholders of the company.
  2. **Observe** your current systems, processes and policies for environmental, social governance.
    - a. For the environment we observe how much, where and why we use energy & water or produce waste, we can also observe the environmental policies of our suppliers and the life cycle of our products and services.
    - b. For social sustainability we observe our stakeholders: how is the company affecting people positively or negatively? Stakeholders are employees, suppliers, customers and the business' wider community.
  3. **Implement** an action plan that is time bound and provides accountability with people assigned to complete different actions. From our measurement and observation stages a clear action plan for the next 4 weeks, 3 months, 12 months, etc needs to be outlined and agreed upon amongst all people of the company (senior managers, supervisors and junior staff)
  4. **Monitoring & reporting.** To ensure our actions are working, we continue to measure our ESG regularly, comparing the data to our starting point data and report our successes or failures to all stakeholders.

There are many areas where businesses can apply this sustainability process, let's look at them in a bit more detail.



## ENVIRONMENTAL SUSTAINABILITY

Environmental sustainability simply means reducing our environmental impact so that future generations are not affected by our actions of today, conserving and protecting natural resources in the present, will ensure the future generations will also have access to those resources.

Environmental sustainability in business starts with resource efficiency which is simply a system to examine every task and process within the business to find more efficient and sustainable ways to manage that system.

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### ENERGY:

It is no secret that the use of fossil fuels to obtain energy is one of the biggest culprits of climate change, which paired with the fact that energy is expensive and will continue to become more expensive as we transition to a renewable energy economy it is one of the most important resources for businesses to manage.

Businesses need to analyse their current energy management process and ensure it is as efficient as possible, using only the energy the business needs for its operations without wasting it.

Business owners should be able to answer these questions:

- How much energy do I use every month (week, quarter...)
- Do I fully understand my electricity or fuel bills?
- Where and when does the business use energy?
  - Audit your lighting
  - Audit your equipment
  - Audit refrigeration systems
  - Audit heating/cooling systems
  - Are your employees using energy efficiently at all times?

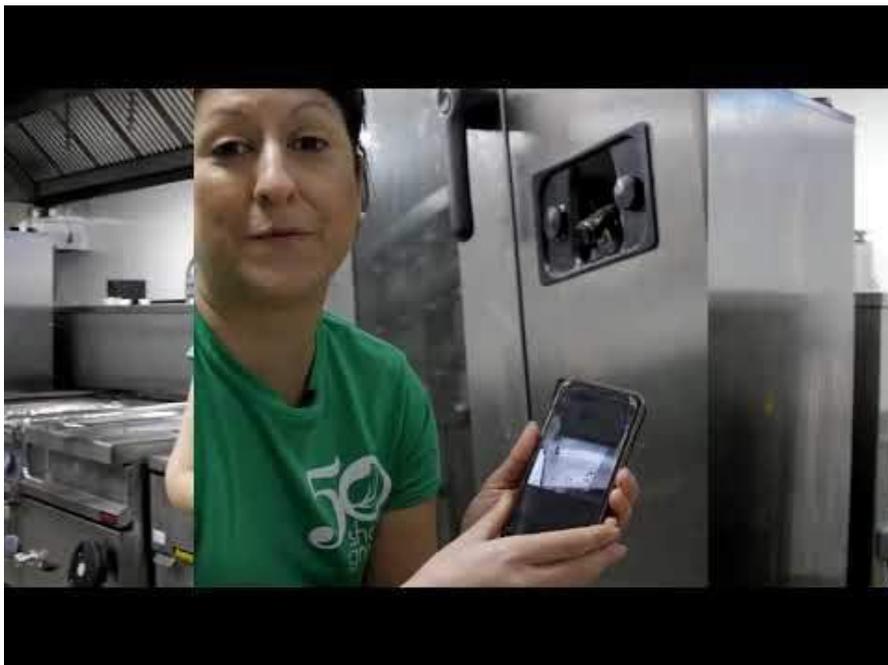
- Do I have written standards of procedure for energy use? Lighting, equipment, etc
- Can I buy Green energy (made from renewables)?
- How much fuel do I use for company travel? Can I reduce the number of Km I travel? Can I use alternative methods to travel? Cycling, walking, bus or trains?

Sample light bulb audit: How many kilowatts does each light consumes per hour?



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Sample equipment audit: How many kilowatts does each piece of equipment consumes per hour?



WATCH NOW

Refrigeration audits: What is the temperature of my fridges and freezers, what type of lighting do they use and are there any air leaks?



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## WASTE:

According to data gathered by “The world counts – Global challenges”, every year we dump a massive 2.12 billion tonnes of waste on the planet (a tonne of waste is 1000kg). If all this waste was put on trucks, they would go around the world 24 times.

What makes this problem even worse is that waste production continues to increase.

It is estimated that global waste generation will increase by 70% by 2050. This is due to two factors:

- The world’s population keeps growing and therefore more people will generate more waste.
- Also, the waste production per person is increasing every year.

Business owners should be able to answer these questions:

- What types of waste do I generate? General, recycling, food, electrical, glass...
- How much waste of each type do I generate every month? (week, quarter...)

- Where and what waste type does the business generate in each area/department?
- Do I have written standards of procedure for waste management?
- How many single use items does my business generate and are they necessary?
- Is there anything I consider waste right now that can be reused, upcycled or recycled onto something else?
- Do I receive or use too much packaging for shipment of products?
- Is my team segregating waste correctly?
- Am I using reputable waste collectors that will treat the waste appropriately?

## WATER:

Water resources are under threat from water scarcity, water pollution, water conflict and climate change. Fresh water is a renewable resource, yet the world's supply of groundwater is steadily decreasing, with depletion occurring most prominently in Asia, South America and North America, although it is still unclear how much natural renewal balances this usage, and whether ecosystems are threatened

Humans make the water recycling process difficult for Mother Nature to keep up with.

As population and industries grow, the demand for water becomes too high which results in *water scarcity*.

As of 2019, 17 countries in total are now experiencing "extremely high" levels of baseline water stress, according to data from the World Resources Institute (WRI).

This, in essence, means that nearly one-quarter of the world's population - around 1.7 billion people - currently live in an area where agriculture, industries and cities withdraw 80 percent of their available water supply every year.

In such a vulnerable state, even a small dry spell could be enough to cause a crisis. And these dry events, scientists agree, are only going to get worse with climate change.

Business owners should be able to answer these questions:

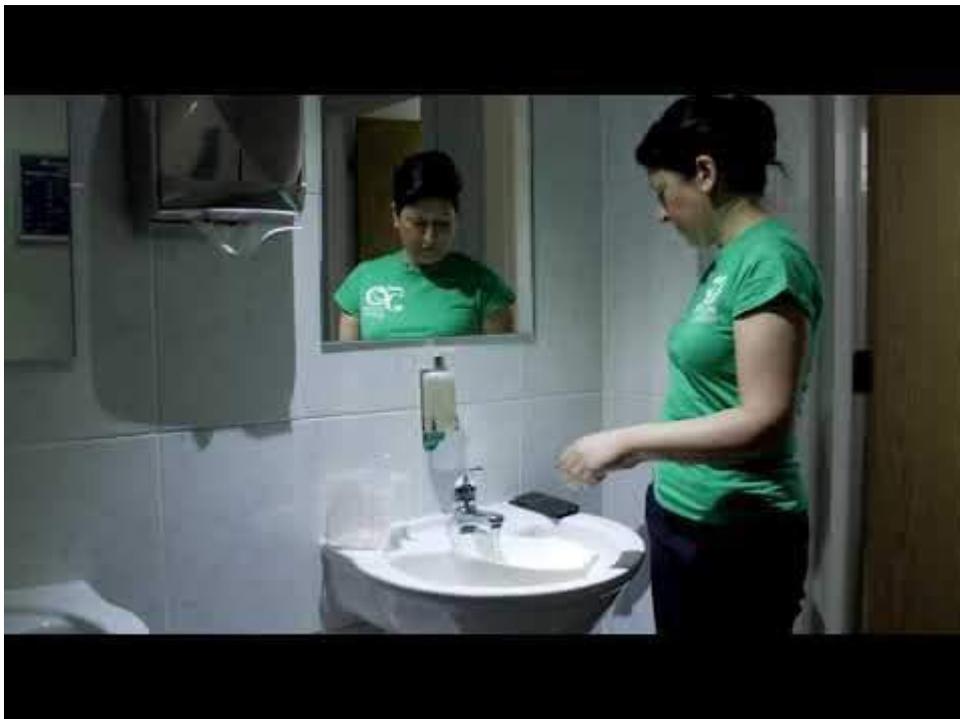
- How much water does my business use every month? (week, quarter...)
- What is the water flow rate of my taps, showers and cisterns? The water flow rate is the number of litres of water that come out of our devices every minute.

- Can I reduce the water flow rate of my devices without affecting business performance?
- Do I have written standards of procedure for water management within my team?
- How does the business manage its wastewater?
- Is there anything I can do to re-use water within the business operations?
- Can I collect rainwater?
- Are my business operations polluting any water bodies?
- Are the cleaning products we use harmful to the environment? Can I switch to eco-cleaning products to reduce harmful substances from wastewater?

Measuring water flow rates throughout the building will allow us to identify if we are using more water than we need to. Good practice water flow rates are:

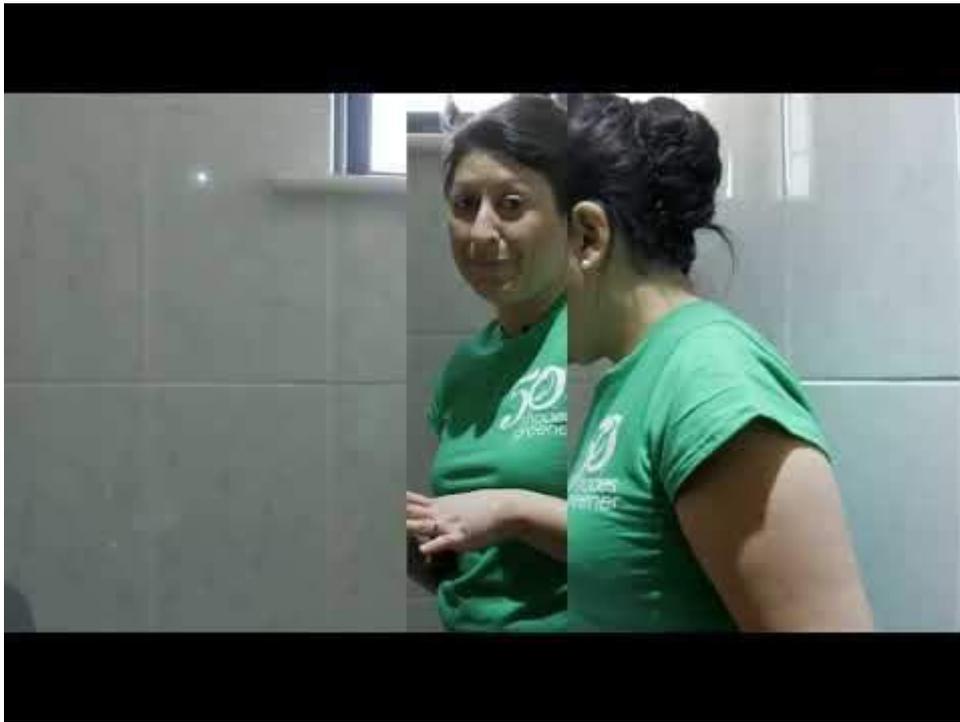
- 6 litres per cistern flush
- 8 litres per minute on taps
- 10 litres per minute on showers

**Measuring water flow rate of taps and showers:**



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Measuring cistern capacity:



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MATERIALS/PURCHASING:

Environmental sustainability and purchasing are highly interrelated. The products we buy and sell matter on many different levels, as they boost economies and have a large environmental impact.

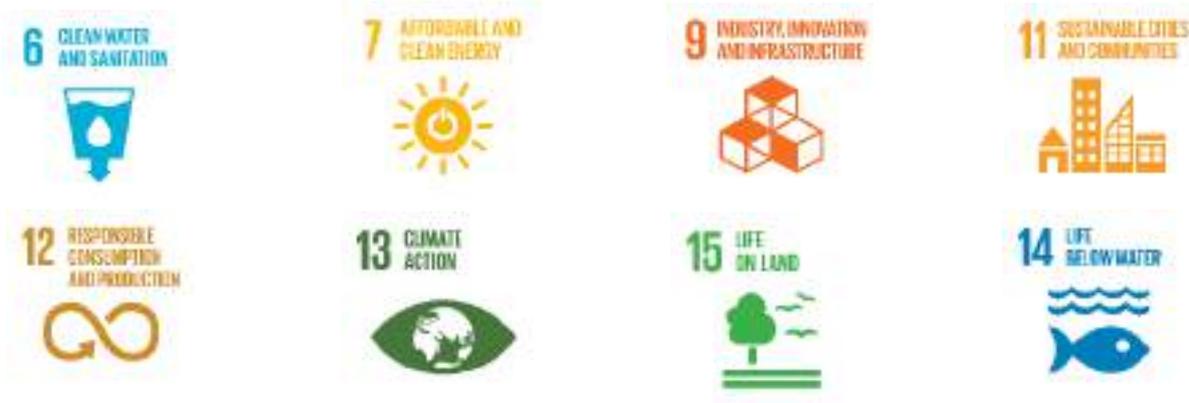
Green Purchasing is defined as the procurement of products and services that have a reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

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Business owners should be able to answer these questions:

- What is the life cycle of the products I buy and or make?
- What materials are used to make the products I buy? Are they sustainable?
- Can I change the materials used from my purchased or sold products, so they are less harmful to the environment?
- How far away are my suppliers? How much do the products I buy travel to get to me?
- Can I upcycle any products that I am currently throwing away as waste?
- Can I apply the circular economy to my business? A circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible.

Addressing all of the questions related to environmental sustainability within a business, and setting up written systems and processes for our teams to manage resources and materials efficiently will help us align the some of the UN Sustainable Development goals:



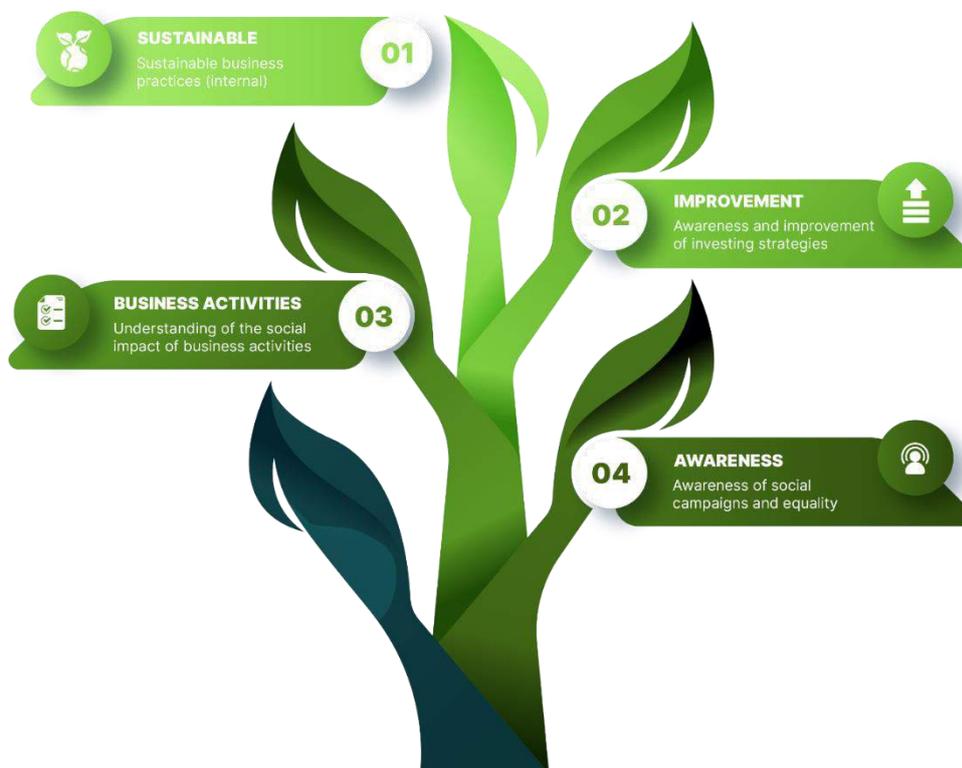
## SOCIAL SUSTAINABILITY

Social sustainability is about identifying and managing a business' impacts both positive and negative, on people.

Directly or indirectly, companies affect what happens to employees, workers in the value chain, customers and local communities, and it is important to manage impacts proactively.

At the same time, actions to achieve social sustainability may unlock new markets, help retain and attract business partners, or be the source for innovation for new product or service lines. Internal morale and employee engagement may rise, while productivity, risk management and company-community conflict improve.

People are at the heart of any business. They create both the key processes and carry them out. Any sustainability strategy begins with empowering staff with the knowledge regarding sustainability and the harnessing of Environment, Social and Governance (ESG) frameworks that promote:



### Sustainable business practices (internal)

- Awareness and improvement of investing strategies
- Understanding of the social impact of business activities
- Awareness of social campaigns and equality

So what can be done to harbour care and commitment towards sustainability within a workforce? It starts with five worthwhile practices:

- Define long-term sustainability strategies.
- Co-create sustainability practices within the business.
- Establish the economic case for sustainability.
- Assign employees to be sustainability champions.
- Ensure employees are trained in sustainability.

The UN Global Compact is the world's largest corporate sustainability initiative. It calls for companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals.

<https://www.unglobalcompact.org/what-is-gc>

The areas that business owners need to measure and improve to enhance social sustainability are:

**Gender equality:** Women are underrepresented across business. They receive unequal pay for equal work and they continue to be targets of physical and sexual abuse. Additionally, women-owned enterprises are economically disadvantaged and lack equal opportunity to compete for business opportunities. Women also face legal and other barriers that affect their opportunities at work and as entrepreneurs.

Empowering women and girls helps expand economic growth, promote social development and establish more stable and just societies. In fact, studies show that women and men participating equally in the economy could add a further US\$28 trillion to global annual gross domestic product (GDP) by 2025.

The Women's Empowerment Principles (WEPs) are a set of Principles offering guidance to business on how to promote gender equality and women's empowerment in the workplace, marketplace and community.

**Decent work for all:** Respect for workers' rights and compliance with labour standards are the foundation of decent work. Advancing decent work and raising the living standards of all workers across operations and supply chains require all companies to adopt sustainable, responsible and inclusive workplace practices, and for companies with supply chains to use their leverage with suppliers to contribute to the realization of decent work globally.

Decent work involves employment that is productive and delivers a fair income. It also should ensure workplace security, social protection, better prospects for personal development and social integration. Businesses should also focus on non-discrimination, equal opportunities and treatment (including for men and women), and freedom to express workplace concerns.

**Human Rights:** The idea of human rights is as simple as it is powerful: that people have a right to be treated with dignity. Human rights are inherent in all human beings, whatever their nationality, place of residence, sex, national or ethnic origin, colour, religion, language or any other status. Every individual is entitled to enjoy human rights without discrimination. These rights are all interrelated, interdependent and indivisible.

<https://www.un.org/en/about-us/universal-declaration-of-human-rights>

Businesses have responsibilities to meet to respect human rights. They must act with due diligence to avoid infringing the rights of others, which includes addressing any negative human rights impacts related to their business. They must also abide by international standards and avoid causing or contributing to adverse human rights impacts through their activities and relationships.

A very important aspect of social sustainability is the wellbeing of employees:

- Are we providing a healthy environment for our people?
- Do they get enough breaks?
- Do they work more than 8 hours a day?
- How healthy are our staff meals?
- Do we assess their mental wellbeing?

- Is there a team spirit amongst our people?
- Are we aware of any possible bullying situations?
- Do we offer internal promotions?
- How often do we provide training to our team?
- How often do we stop to identify training needs?
- Do we know what their individual aspirations are for the future?
- How are we actively supporting those aspirations?

There are many varying factors at play to create a healthy working lifestyle for our team.

In a TedTalk, **Tom Oxley** talks about offering employees a safe space and opportunity to talk about their mental health.



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He gives very clear examples where businesses perceive the costs of employees taking stress leave versus having the conversation before it arrives at this point.

Often employees who struggle at some point with stress, anxiety or depression during their working lives, feel that they are unable to speak up for fear of stigma or the line 'We're all stressed'.

'Soldiering on' is a term often used as a positive trait, rather than the obvious case that an employee may not be feeling mentally or physically ok but continues to work.

A lot of businesses perceive this as resilience and in some cases have normalised this behaviour. But actually, it ends up costing the business money by having employees on

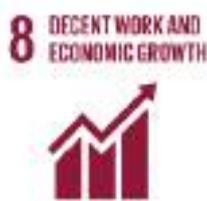
site, who are not productive. Oxley also speaks of the idea of **presenteeism** and the fact it costs 1.8 times that of absenteeism.

What should resilience actually mean and look like? Simply put, it is being able to strike a healthy work-life balance where both the positives and negatives that occur in both environments to the employee, are supported by their workplace.

## INFLUENCING BEHAVIOURS THROUGH COMMUNICATION

In order to secure a more meaningful and sustainable change, creating a healthy dialogue helps. Some staff members may be sceptical, even hostile, towards sustainability goals. Make sure their qualms and queries are heard and addressed. Through this, an organisation is more likely to see those early detractors become allies. Furthermore, through dialogue, sustainability goals can be refined as time goes on with the input of those across the organisation, not simply driven by a chosen few. And remember, consistent, open communication and feedback are key for any strategy change.

Addressing all of the measures related to social sustainability within a business, and setting up policies for our teams to ensure our businesses make a positive impact on the people it comes into contact with will help us align to the following UN Sustainable Development Goals:



## CARBON NEUTRAL & NETZERO

'Carbon neutral' has been the focus of many public and private sector growth strategies for several years now but still suffers from vague definitions.

So what exactly is carbon neutral vs net-zero?

The common perception is that carbon neutrality and net-zero carbon emissions are essentially the same thing. They both describe a state where the amount of carbon emitted is balanced by the same amount being sequestered – or otherwise removed – from the atmosphere. However, there's more to it than that.

Carbon neutral should be applied to specific circumstances, such as the emissions and sequestration actioned by a business or organisation.

Net-zero should be used to describe much larger groups, such as industries, governments or countries themselves.

Today, businesses and organisations in both the private and public sectors will find themselves increasingly under scrutiny for their impact on the environment, with sustainability being seen as a key selling point by many consumers.

Now, and in the future, businesses and organisations will be constantly reminded of the need to reduce their environmental impact to remain in line with government mandates and the net-zero emissions by 2050 goal.

With this in mind, there will be an increasing amount of climate change terminology that businesses and organisations must be aware of.



## CLIMATE TERMINOLOGY FOR BUSINESSES

The International Panel on Climate Change's (IPCC) 2018 Special Report on Global Warming stated the average global temperature increase should remain under 1.5°C to mitigate the worst potential effects of runaway climate change.

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The public and private sectors will play a key role in achieving this. New terminology will be used in everyday business more and more, so it's worth getting to grips with what this new terminology means.

- **Climate positive:** Any activity that goes further than achieving net-zero carbon emissions, creating an overall positive benefit to the environment. For example, an organisation could begin sequestering more carbon than they create.
- **Carbon negative:** This is the same as 'climate positive' but directly mentions a negative level of carbon production.
- **Climate neutral:** This is a catch-all term, referring to reducing all greenhouse gas (GHG) emissions alongside eliminating all other impactful behaviour, such as completely reducing waste that goes to landfill.

## THE CIRCULAR ECONOMY

Today, businesses are quickly realigning their models to suit consumer interests driven by the desire to reduce environmental impact, carbon emissions, plastic waste or other motivations.

The latest trends, such as re-commerce, leasing and repair options, show economies can easily be altered to fit the current business climate.

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Circularity in business maximises value across entire supply chains and moves away from the traditional take-make-waste model associated with traditional linear capitalism. What this looks like is hotly debated, with supporters and detractors conferring their own narratives towards the argument. However, circularity in business isn't only a good idea - but it's also a necessary one.

Take electronic waste production, for example. According to the World Economic Forum's 'A New Circular Vision for Electronics' report, 44.7 million tonnes of e-waste is produced every year, equivalent to the size of 125,000 jumbo jets or 4,500 Eiffel Towers.

In circumstances such as this, it's no longer viable for all that material to simply be thrown away after use. Circularity within economies replaces this, extending the life and therefore the value of materials through reuse, repair, reclamation and recycling. So what does circularity look like in practice?

**Upcycling** Made using reused or discarded materials, upcycled products are increasingly popular – especially within the fashion industry. Many large clothing retailers currently offer upcycled pieces as part of their main retail offering.

**Product Design** One of the first things that manufacturers need to consider is the design of their products. Can they be repaired? Can parts easily be replaced? Does the manufacturing process itself create a lot of waste? Answering these questions will provide the impetus that organisations need to begin redesign projects.

**Product redesign**, if done well, can even ensure that the costs of manufacturing drop, as new designs can optimise the material use during the building process.

**Recycling** The most common type of circularity, where products can be appropriately dismantled and harvested for reusable parts. Everything from containers to clothing to IT hardware can be recycled.

**Resale and Consignment** According to ThredUp's 2020 Resale report, resale models grew 25 times faster than retail in 2019. With the reclamation, recycling and reuse of products easier than ever before, businesses are finding buying non-virgin material and reusing it in new products is much cheaper than buying new.

Similarly, because of the reuse of material, the related carbon emissions of each product will be far reduced - an attractive quality to many people, which in turn can increase the product's appeal in the eyes of the environmentally conscious customer.

**Circular Design Approaches** With an emphasis on reuse or reclamation, products need to be designed in a way that considers their end-of-life. Will there be any value to be extracted upon disposal? Does end-of-life really need to be 'the end'? Circular design considers both the user, the lifecycle and the entire system that the product exists within. This aligns with what the Ellen MacArthur Foundation defines as the three pillars of a circular economy:

- Designing out waste and pollution
- Keeping products in use for longer
- Regenerating natural systems

For the business owner, drawing the maximum value from a product or material before it needs to be truly retired makes financial sense. Similarly, new business paradigms can be created from a focus on circular design. Take a piece of technology, such as a phone or laptop. How much more does a business stand to make if they can offer effective repair services on top of their traditional products and plans?

**Reverse Logistics** This is a key part of any circular business model. With efficient reverse logistics, products and materials can be reintroduced to the market after being used. It involves having products returned, broken down into their respective parts and reusing any parts deemed market-grade. Circularity within a business can present itself in many forms. However, each needs systemic thinking, planning and collaboration to work. With an emphasis on transitioning to business models with much-reduced environmental impact, businesses now need to identify what works best for them.

**Production on Demand** Requiring a lot of supply chain agility, production on demand is where products aren't created in bulk, but rather built as and when orders come in. For example, for a small independent fashion company that may receive ten orders for a specific item, ten of those items would be made and delivered.

## ESG

ESG (Environmental social governance) plays an important role in the structure of businesses looking to remain competitive and resilient in the face of a changing climate and business landscape.

Overall, ESG requires a number of different considerations and inclusions:

Environmental	Social	Governance
Renewable fuels	Health & Safety	Ethical framework
Energy efficiency	Workers rights	Diversity of management
Circularity	Diversity & inclusion	Stakeholder engagement
Recycling	Human rights	Shareholder rights
Sustainable procurement	Community benefits	Living salaries

When implementing an ESG framework into a business, there are several steps that should be taken:

- 1. Conduct a materiality assessment:** This requires identifying and assessing ESG issues that may affect a business. These can be scaled to suit the topics that matter the most to a business and help to inform further ESG strategy decisions.
- 2. Assess your current ESG commitments:** Gather reports, policies, data and commentary from internal stakeholders to identify whether you have existing ESG policies in place and understand how successful they are.
- 3. Set objectives** regarding maintaining, improving and optimising any and all ESG policies in place: A business may find they already have a number of ESG processes in place, but have not referred to them as parts of a potential ESG framework.
- 4. Create an ESG framework:** This includes a clearly defined vision, a roadmap for actions to be taken and accountability and how monitoring will take place.
- 5. Measure Key Performance Indicators (KPIs):** ESG KPIs should be tracked within a centralised data management system. At that point, regularly scheduled communication regarding progress can be shared with key stakeholders, making it easier to evaluate how ESG commitments are taking shape.

## RESILIENCE

Due to the significant and serious climate impacts we're currently experiencing, ESG now needs to incorporate resilience into its components.

Business owners and investors can no longer outrun either social or environmental problems and so an understanding of practical resilience should be leveraged to avoid disruption.

Due to the wide-ranging effects of climate change, disruption could come in many forms.

According to [McKinsey](#), companies could face supply chain disruptions that last at least a month every 3.7 years.

Alongside an ESG strategy, companies can look to their actual infrastructure to make changes. For example, risk mitigation can be captured by diversifying and regionalising both manufacturing and supply chain networks, working to add backup production, distribution and inventory management.



Overall, resilience is a key consideration for businesses looking to the future. An article by the World Economic Forum sums it up effectively:

“To understand fully which investments and portfolios can withstand shocks to the system, investors must look at all relevant facts, not just those with which they are familiar. The missing piece of the puzzle is resilience. Until businesses and investors embrace an approach where resilience is a consistent thread running through ESG, they will remain ill-equipped to rebound most effectively from the crises that inevitably lie in our future”

## CARING FOR CLIMATE

[Caring for Climate](#) is the UN's initiation for businesses to develop and maintain leadership regarding climate action.

It's convened by the United Nations Global Compact, the UNFCCC and the United Nations Environment Program (UNEP).

The purpose of Caring for Climate is to mobilise those in leadership positions within a business to implement practical solutions to climate change and alter the nature of the business world, ensuring a greener global economy alongside shaping public policy.

For signatories, the benefits are as follows:

- Businesses gain access to knowledge pools and networking opportunities.
- Business strategies can be aligned with a UN-led initiative, increasing the visibility of a business' work.
- Create transparency around a company's actions.
- Gain learning on the latest technological innovations and best practices.
- Help shape national and international policy agendas on climate change.
- Participate in the annual Caring for Climate Business Forum.
- Engagement in national stakeholder dialogues in collaboration with Global Compact Local Networks



## FRAMEWORK FOR STAKEHOLDER COLLABORATION

As countries transition towards low carbon economies and reach for sustainable development, the economy and business must change the way they do things, in order to achieve competitive advantage and more importantly sustainability. Collaboration provides the mechanism and catalyst required to shift current business models and shape future models towards sustainability.

Our ability to meet the current and future demands that are required of commerce we need to understand what we require of our workforce and plan the upskilling, reskilling, and training of the talent that will help us achieve those needs including green skills.

Greater alignment with government policy and climate targets across all stakeholders will ensure that we will have greater effect, success, and future sustainability.

### Using Occupational Standards (OS) to meet current and future skills needs

**Occupational Standards are statements of the standards of performance an individual must achieve when carrying out the functions of an occupation in the workplace, together with specifications of the underpinning knowledge and skills.**

It is essential that employers take a lead role in the development of OS. This will ensure that employers recognise OS as clear, concise, and consistent statements of the requirements for occupational competence and the knowledge and skills individuals need to develop in order that they can perform effectively and safely in the workplace.

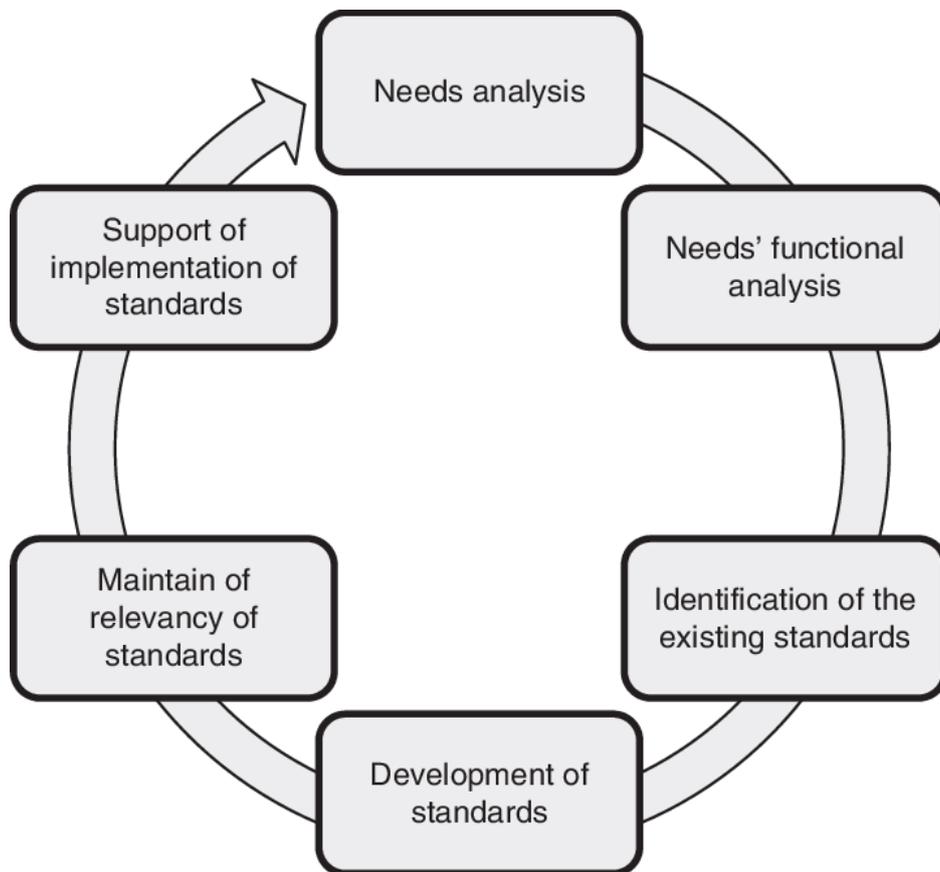
Simply put, OS are benchmarks of good work practice. In order to better understand OS it is useful to explain each of the two words that makes up the OS name, that is, Occupational and Standard.

- OS are **Occupational** because they describe the key tasks and responsibilities (duties) required of an individual when carrying out occupational functions in the workplace, i.e. in their occupation (as a plumber, waiter, beautician etc.)

- OS are **Standards** because the defined statements about working activities are statements of effective performance which have been agreed by representative samples of employers and other key stakeholders

Each OS defines one occupation within a particular sector. Each OS must be a short, concise, and clear readable document. In their essential form, OS describe occupational functions, standards of performance and knowledge and skills required.

As OS need to be flexible, they should not contain unnecessary 'clutter'. Like all standards, OS must be kept up to date. Once they are developed and published, their use should be monitored by the relevant Sectoral Commissions and incrementally changed over time to reflect changing labour market needs.



## INTEGRATING GREEN SKILLS INTO OCCUPATIONAL STANDARDS

### Reasons we need occupational standards

- Lead to a common set of employer-led standards that define the content of technical courses, qualifications, and apprenticeships
- Help individuals, organisations, and training providers to improve performance
- Describe good practice in particular areas of work
- Set out a statement of competence which bring together the skills, knowledge and understanding necessary to do the work
- Provide managers with a tool for a wide variety of workforce management and quality control
- Offer a framework for training and development

### Reasons to integrate green skills into occupational standards

- Promote a healthy economy through green skills and jobs
- Promote sustainable development
- Help organisations and society achieve the 17 SDG's
- Provide opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security, and human dignity
- Help meet current green jobs and those into the future
- Improve quality education and help meet learners' real needs for future employment
- Help reduce energy usage, raw materials, and water consumption, decarbonise the economy and reduce greenhouse-gas emissions
- To minimise or avoid altogether all forms of waste and pollution, to protect and restore ecosystems and biodiversity
- Promote equality and inclusion
- Promote good health and wellbeing
- Protect the environment from climate change and environmental degradation, including the pollution of water, land and air, the irreversible loss of biodiversity

- Workers want more meaning and purpose in their work – show them how learning green skills can lead to more rewarding employment

### Who are the users of occupational standards

- Employers, managers and human resource management practitioners
- Employees
- Learners/students
- Career counsellors and other individuals making career decisions
- Trainers, educators, curriculum developers and evaluators
- Professional and industry associations
- Policy-setting bodies, governments, and local authorities

## THE USES OF OCCUPATIONAL SKILLS

### Recruitment and Selection

- Occupational Standards can be used to understand job requirements and create job descriptions– For example, review OS for the most important duties and knowledge/skill requirements; then, select important duties and worker requirements to list on the job description
- They can be used to create job interviews for purposes of selection/staffing – For example, design knowledge-based questions and behavioural interview questions.
- Better person-job fit can be achieved when appropriate job and worker requirements are considered during recruitment and selection

### Performance Management

- These Standards can be used as benchmarks against which to assess operator's performance – because they provide good practices for an occupation in each major category of duties; they allow to compare performance against clear, agreed-upon objectives
- Employees could also self-assess themselves on the knowledge/skills specified in these standards
- They can be used to determine areas for future growth/development
- Occupational Standards can be also used to set goals/objectives for future performance

### Training and Development

- They can be used to develop orientations/induction for new hires
- They can also be used to assess relevance of existing training programs/courses – e.g., review content of existing courses and see if they target knowledge and skills highlighted within Occupational Standards

- These Standards are also used to develop curricula and syllabi for new training courses/programs – e.g., after determining which duties are vital to the organisation, look at the standards to determine which knowledge and skills are needed to perform those duties; then, design new course(s) to target these vital skills/knowledge

### **Career Planning/Development**

- At the beginning of career planning, they can be used to determine knowledge/skill requirements for particular job roles
- They can also be used to assess worker's current skills and develop plans for reaching the desired position/level – For example, with additional training and development

### **Other Uses of Occupational Standards**

- To formulate criteria for accreditation of training facilities
- To provide a foundation for the development of certification programs
- To develop exams for evaluating occupational knowledge/skill(s)
- For professional recognition, e.g., acknowledging skills and experience, awarding credentials
- For labour market research, e.g., defining and comparing occupational classifications or conducting trend analysis

### **Developing an occupational standard**

- "Establish an institutional framework for social dialogue"
- convene a working group to prepare a proposal for a new or revised OS.
- choose an appropriate methodology for developing OSs, such as Developing a Curriculum (DACUM), job analysis, functional analysis or SFIVET's situation-based approach

**The main steps involved in developing an OS are:**

- identification and definition of the occupation
- identification and training of key stakeholders and experts
- identification of key groups of tasks, functions and skills relevant to the occupation
- identification and analysis of learning outcomes (knowledge, skills and attitudes) for each key group of tasks
- drafting of the complete OS using the established format
- verification of the OS by sector experts and recommendations for further improvement.
- Once consensus has been reached, the TVET agency, or other competent body, should publish the OS.

**The occupational profiles must reflect not only the immediate skills needs of enterprises, but they must also correspond to the long-term needs of the younger generation entering the labour market.**

**Therefore, the occupational profiles must be sufficiently broad and go beyond immediate occupational requirements to support development of the core skills for employability that underpin lifelong learning.**

## GREEN SKILLS

**Generic Green Skills (GS1):** develop environmental awareness, resource-efficient activities aimed at reducing the negative impact of human activity on the environment, building an understanding of environmental, social and governance (ESG) and their contribution to sustainability

Generic green skills include general knowledge, skills, attitudes and values and they are necessary for contributing to sustainable social, economic, and environmental development in any job. The development of generic green skills is important for the greening of all industries, as they enable a person to develop a green mindset and adopt generic operational practices that minimize environmental impacts.

Dr Margarita Pavlova (2014) has classified generic green skills into the following three categories:

**Cognitive competencies** (for example, environmental awareness and a willingness to learn about sustainable development, systems and risk analysis, skills to assess, interpret and understand both the need for change and the measures required, innovation skills to identify opportunities and create new strategies to respond to green challenges;)

**Interpersonal competencies** (for example, coordination, management, and business skills to facilitate holistic and interdisciplinary approaches that encompass economic, social and ecological objectives, communication and negotiation skills for discussion of conflicting interests in complex contexts, marketing skills to promote greener products and services)

**Intrapersonal competencies** (adaptability and transferable skills that help workers learn and apply new technologies and processes required to green their jobs, entrepreneurial skills to capture opportunities presented by low-carbon technologies)

Generic green skills identified through this classification system align with the key competencies or 'soft' skills that employers already know are crucial for a modern workforce, but importantly, they are also contextualized within the perspective of environmental awareness and an understanding of sustainable development.

**Specific Green Skills (GS2):** Implementation of standards/processes to protect ecosystems and biodiversity, to reduce energy, materials and water consumption as well

as implementing social governance to promote equality, diversity, and social justice.  
(related to environmentally friendly processes that are similar across different sectors):

- Quantification and monitoring (waste, energy, water)
- Management systems (waste, energy, water)
- Procurement and selection
- Material use and impact quantification
- Impact and use minimisation
- Impact assessment
- Risk management

**Highly Specialised Green Skills (GS3):** Specialized jobs for reduction of environmental impact.

Renewable energy technology, sewerage systems, water purification, urban design, waste management technology.

## EXAMPLES OF OCCUPATION STANDARD STATEMENTS

GS 1	Duty statements	Task statement examples
1.	Demonstrate sustainability & environmental awareness	<ul style="list-style-type: none"> <li>Manage resources efficiently</li> <li>Apply reduce waste, reuse resources, and recycle material policies</li> <li>Choose sustainable products</li> <li>Conserve water and energy</li> <li>Promote sustainability action</li> <li>Implement sustainability strategies and practices</li> <li>Solve problems based on sustainable practices</li> <li>Adopt and actioning sustainable practices</li> <li>Take responsibility and accountability for sustainability choices</li> </ul>
2.	Exhibit resource efficient activities	<ul style="list-style-type: none"> <li>Reduce appliance and equipment use</li> <li>Monitor equipment use</li> <li>Switch off appliances when not needed</li> <li>Repair leaks</li> <li>Perform maintenance tasks</li> <li>Take responsibility and accountability for resource efficient choices</li> <li>Lower thermostats where possible</li> </ul>
3.	Demonstrate social awareness	<ul style="list-style-type: none"> <li>Exhibit behaviours of a team player</li> <li>Apply inclusive practices and decision making based on SDG's</li> <li>Volunteer</li> <li>Solve problems based on fairness and equality</li> <li>Apply health &amp; safety protocols</li> <li>Champion/support workers' rights</li> <li>Take responsibility and accountability for social sustainability</li> </ul>
4.	Demonstrate governance awareness	<ul style="list-style-type: none"> <li>Apply an ethical approach to activities</li> <li>Solve problems using ethical considerations</li> <li>Question unethical behaviour</li> <li>Protect different species of the planet, their homes, and relationships for co-evolution</li> </ul>
5.	Promote biodiversity	<ul style="list-style-type: none"> <li>Prevent biodiversity loss</li> <li>Do no harm to both biodiversity and the environment</li> <li>Apply the concept of a circular economy</li> <li>Upcycle materials and goods</li> </ul>
6.	Exhibit sustainable purchasing decisions	<ul style="list-style-type: none"> <li>Re-use materials and goods</li> <li>Repair materials and goods</li> <li>Apply the concept of a product's life cycle in decision making</li> <li>Procure repairable materials and goods</li> </ul>

Ensure purchasing decisions do not adversely affect the environmental and other people on the planet

GS 2	Duty statements	Task statement examples
7.	Implement standards and processes to protect ecosystems	<p>Motivate and lead others for climate action</p> <p>Apply the key components of climate action, collective action, policy and planning</p> <p>Apply strategy and planning to manage scope 1, 2 &amp; 3 emissions from the built environment</p> <p>Collaborate to effect positive climate action</p> <p>Identify how a building's use of resources negatively impacts the environment</p> <p>Calculate utility usage and carbon emissions</p> <p>Plan and conduct a Green Team meeting</p> <p>Accurately calculate energy, waste and water consumption and set baselines and KPIs</p> <p>Monitor, evaluate &amp; report environmental KPIs</p>
8.	Implement standards and processes to protect biodiversity	<p>Promote ways to support the local biodiversity of our area</p> <p>Include biodiversity conservation in business decisions</p> <p>Adopt biodiversity and promote personal and employee wellbeing</p>
9.	Implement standards and processes to reduce energy, materials, and water consumption	<p>Complete light, equipment, refrigeration, heating, and insulation audits in the built environment</p> <p>Identify energy use in less used areas of buildings</p> <p>Promote behaviours that assist us to conserve energy</p> <p>Use technology available to reduce energy use (timers, submeters)</p> <p>Establish an energy action plan for the future</p> <p>Measure water flow rates</p> <p>Adapt major water usage devices and reduce their flow</p> <p>Identify water leaks</p> <p>Use technology available to reduce water use (sensor taps, aerators, hippo bags)</p> <p>Develop a water action plan to reduce water use</p> <p>Conduct a waste audit</p> <p>Use technology available to reduce waste (compactors, anaerobic digestors...)</p> <p>Measure food waste</p> <p>Reduce food waste</p> <p>Conduct a single use items audit</p> <p>Establish a waste management plan for the future</p> <p>Apply the concept of a circular economy</p>
10.	Implement sustainable purchasing processes	<p>Measure the location and sustainability status of our suppliers</p> <p>Evaluate other suppliers' sustainability practices</p>

11. Implement social governance practices

Develop a green purchasing policy  
Establish systems and processes to select new suppliers to help us reduce the environmental impact of our supply chain  
Adopt and apply the main pillars of social sustainability: Diversity, inclusion & equality.  
Measure & improve gender equality within the workplace or organisation  
Measure & improve diversity within the workplace or organisation  
Measure & improve wellbeing within the workplace or organisation

## THE ESG/SUSTAINABILITY MANAGER OS

### Occupational Description for the ESG/Sustainability Manager:

An employee in this occupation may lead a team or work as part of a larger management structure to drive change. They would be required to liaise with external stakeholders on a variety of sustainable issues, for example industry, suppliers and regulatory bodies. An employee in this occupation will have joint or shared responsibility for implementing a sustainability culture throughout the organisation. This will mean they will need to work across departments throughout the organisation and will have a high level of autonomy to do so. In some organisations, they may lead a small team of dedicated members, however in other organisations, they will work within a management structure with no line management responsibilities. The level of supervision they receive will be down to the size of the company and the individual structures of those companies.

The broad purpose of the occupation is to help organisations, businesses, charities, the public sector and social enterprises to find new and innovative approaches to working and build resilience based on economically sound, socially friendly and environmentally driven principles. They will be responsible for collaborating in the development of organisational sustainability strategies. They will implement and monitor sustainability strategies, influencing behaviour of stakeholders, such as customers, suppliers, colleagues and consumers. The role is highly challenging and multifaceted and will reach across all areas of the organisation.

In their daily work, an employee in this occupation interacts with numerous colleagues including a specialist subject manager or a senior manager within the organisation at executive or non-executive director level or within smaller organisations they may be at director or board level.

**List of duties and Knowledge Skills and Behaviours of the occupation:**

S.N	Duty statements	KSB's
1.	Support the business to ensure legal sustainability compliance and embed a management system approach to sustainability performance improvement	K1 K2 K8 K10 K14 K15 S2 S3 S5 S6 S8 S9 S10 S11 S12 S14 S15 B1 B2 B3 B4 B5 B7 B8
2.	Identify and collaborate in the setting of sustainability KPIs for the wider business/organisation	K10 K19 S4 S12 S15 B5 B7 B8
3.	Develop and implement a comprehensive auditing programme	K10 K13 S5 S10 S15 B5 B7 B8
4.	Manage environmental data and monitor the sustainability performance of own business and suppliers	K4 K6 K7 K10 K13 K19 S2 S3 S4 S5 S6 S10 S15 B1 B3 B4 B5 B7 B8
5.	Review sustainability management information, including incidents, and advise the company on performance, impacts, business risk and appropriate response	K8 K10 K17 K18 K19 S4 S5 S8 S10 S12 S15 B1 B2 B3 B4 B5 B6 B7 B8
6.	Train staff on sustainability principles, legislation, risks and opportunities	K17 K18 S11 B2 B3 B4 B5 B6 B7 B8

- |     |   |   |
|-----|---|---|
| 7.  | Maintain regular and effective communication with colleagues throughout the wider business on sustainability best practice                | K9 K16 K17 K18<br>S6 S8 S9 S11<br>B2 B3 B4 B5 B6 B7 B8                      |
| 8.  | Act as the business champion to lead on addressing all areas of sustainability  | K1 K2 K3 K5 K9 K11 K15 K17 K18<br>S1 S7 S11 S12 S14<br>B2 B3 B4 B5 B6 B7 B8 |
| 9.  | Reduce waste and, where practical, ensure materials are purchased from sustainable sources in order to reduce the environmental footprint | K4 K6 K7<br>S3 S5 S6 S8 S9 S12 S13<br>B1 B2 B3 B4 B5 B7 B8                  |
| 10. | Advise the organisation on reduction of harmful emissions and substances to the environment and people                                    | K17 K18<br>S4 S5 S7 S8 S9 S11 S14<br>B2 B3 B4 B5 B6 B7 B8                   |
| 11. | Promote ethical business standards and practices internally to enable employees to make the right choice                                  | K1 K15 K17 K18<br>S4 S5 S7 S8 S9 S11 S14<br>B2 B3 B4 B5 B6 B7 B8            |
| 12. | Act as key business contact and actively engage with industry and regulatory bodies for sustainability issues                             | K1 K2 K3 K5 K8 K9 K11 K14 K17 K18<br>S9 S14<br>B1 B2 B3 B4 B5 B6 B7 B8      |
| 13. | Lead on business transparency in the area of corporate reporting  | K11 K16 K17 K19<br>S1 S4 S7 S14<br>B2 B3 B4 B5 B6 B7 B8                     |
| 14. | Investigate and implement water, energy and materials reduction initiatives   | K7<br>S3 S4 S5 S7 S8<br>B1 B3 B4 B5 B7 B8                                   |

- |     |   |  |
|-----|---|--|
| 15. | Lead, manage and deliver sustainable business projects, such as carbon foot printing, impact assessments, change management                                   | K6 K18<br>S4 S5 S7 S8 S10 S11<br>B1 B2 B3 B4 B5 B7 B8          |
| 16. | Horizon scan to identify future trends, technologies, innovations and best practice   | K11 K12 K19<br>S1 S2 S3 S6 S7 S11 S13 S14<br>B1 B3 B4 B5 B7 B8 |
| 17. | Collaborate with wider teams on the corporate social responsibility agenda and managing media   | K15 K17 K18<br>S1 S7 S9 S14<br>B2 B3 B4 B5 B6 B7 B8            |
| 18. | Coach and mentor individuals in sustainable business process  | K17 K18<br>S8 S9 S11 S14<br>B2 B3 B4 B5 B6 B7 B8               |
| 19. | Develop a business case to clearly demonstrate return on investment   | K4 K19<br>S3 S4 S12 S13<br>B1 B2 B3 B4 B5 B7 B8                |
| 20. | Take responsibility for and manage own professional development, keeping up to date with technical knowledge and skills, and record these through CPD records | K12 K19<br>S3 S11 S13 S14<br>B1 B2 B3 B4 B5 B6 B7 B8           |

## KSBs

### Knowledge

**K1:** The global social, environmental, economic and ethical pressures affecting business, government and society

**K2:** The social, economic, philosophical, political, technological and regulatory environment and potential levers to drive change

**K3:** How different cultures, customs and business practices impact on how the organisation works

**K4:** How to analyse the life cycle of products

**K5:** How to build sustainable communities for the future

**K6:** Utilising continuous improvement techniques to drive the sustainability agenda within the organisation such as through the reduction of waste or recycling

**K7:** How to identify probable sustainability issues and how they can be resolved or mitigated

**K8:** The principles of being the best "neighbour" in the local community taking into account issues such as emissions and engaging with the local community

**K9:** How to identify sustainability key stakeholders and their roles

**K10:** The design of environmental systems and how to embed them within the business

**K11:** How external factors can influence consumer behaviour and how they can be overcome

**K12:** Sustainable technologies relevant to own sector

**K13:** The principles and practices of internal and external audits

**K14:** The macro environmental factors which influence the sector such as climate change, water resource and pollution and their impact on business/organisational practice

**K15:** Key principles which identify the "Ethical Business" and how to put it into practice

**K16:** How the organisation's design and structure can drive or hinder sustainability practices

**K17:** How to communicate sustainability messages effectively internally at all levels of the organisation or externally to key stakeholders

**K18:** Transformational leadership and change management in areas such as creating a vision for the future, motivating and inspiring others to engage with the vision and coaching and mentoring others and building a team to achieve the goal

**K19:** How to research, critically evaluate and present business information; utilising statistical/analytical skills to interpret primary/complex data

## Skills

**S1:** Understand and resolve ethical, corporate social responsibility and sustainability issues within the business

**S2:** Devise and implement achievable and viable sustainability strategies for the organisation

**S3:** Critically evaluate sustainability issues and trends which may impact on business performance

**S4:** Analyse sustainability performance data and develop the appropriate business response

**S5:** Assemble and drive resource efficiency including auditing and consulting on energy, water, waste, materials, packaging.

**S6:** Contribute, collaborate and, where appropriate, show leadership on procurement Standards and Governance strategy

**S7:** Formulate and co-ordinate a business response on sustainability issues to internal and external stakeholders

**S8:** Collaborate on, lead and/or manage organisational sustainability projects, such as life cycle analysis or foot printing to drive change throughout the business

**S9:** Identify, influence and manage key stakeholders across different business functions

**S10:** Support the organisation at all stages of the internal and external audit process

**S11:** Contribute and collaborate in the leadership, coaching and management of a multidisciplinary team, collaborating with and influencing other Sustainability colleagues and the wider business to achieve organisational sustainability objectives

**S12:** Identify, assess, and prioritise sustainability risks within the organisation and utilise resources to mitigate, control and monitor the probability and/or impact of such events

**S13:** Design, implement and evaluate the internal and external environmental audit to drive resource efficiency

**S14:** Appraise the impact of current global economic issues to the viability of sustainability projects and its impact on profitability

**S15:** Directly influence and input into the corporate social responsibility agenda for the organisation

## Behaviours

**B1:** Problem solving: take a holistic approach to solving complex problems

**B2:** Integrity and respect: listens to others and seeks to build understanding; embraces the diversity of colleagues and makes complex issues easy for others to understand

**B3:** Networking: Establishes internal and external networks to keep current knowledge of sustainability trends and issues up to date

**B4:** Personal effectiveness: demonstrates a high level of self-awareness and is emotionally intelligent; adapts behaviour easily dependent upon situation and impact to achieve desired result

**B5:** Influencing and negotiation: act as a subject matter expert to inspire others to achieve business goals; adapts language and communication medium to seek agreement; proactively communicates clearly, concisely and on a timely basis; is inventive about win-win options to gain majority consensus

**B6:** Ethical: demonstrates, and champions in others, a healthy respect for key moral principles that include honesty, fairness, equality, dignity, diversity and individual rights

**B7:** Responsiveness to change: flexible to changing demands; resilient under pressure

**B8:** Innovation: demonstrates curiosity to foster new ways of thinking and working; seeks out opportunities to drive forward change and improvements for the business

## GREEN JOBS FOR NEPAL

Planning for future green jobs in Nepal is imperative to building a sustainable economy. The development of occupational standards & educational programmes requires time, collaboration and planning between the government, private and education sectors.

Nepal is ranked fourth, in terms of vulnerability to climate change and looking at the future jobs that will be required for the green economy, we can identify 3 categories:

**Climate adaptation:** How is Nepal going to adapt to the effects of climate change?

Due to its geography, Nepal is exposed to a range of climate risks and water-related hazards triggered by rapid snow and ice-melt in the mountains and torrential rainfall episodes in the foothills during the monsoon season. Flooding and landslides are two of the most common predicted risks.

Geologic investigations, good engineering practices, and effective enforcement of land-use management regulations can help to reduce landslide hazards.

Based on this scientific knowledge, we can assume that we will need to educate people on:

- Planning/Engineering
- Geology experts
- Land use management
- Rescue services
- Soil erosion & soil health experts
- Water irrigation experts
- Environmental scientists

**Climate mitigation:** How is Nepal going to reduce GHG emissions?

In Nepal 95% of greenhouse gas emissions are from agriculture and forestry sectors; of this, 77% was from the forestry sector alone.

The livelihoods of more than 80% of the local people of hilly regions are heavily dependent on climate sensitive areas such as agriculture, forest and livestock and on other natural resources such as water and irrigation.

Based on this knowledge, we can assume that we will need to educate people in the subjects of:

- Sustainable agriculture & farming
- Sustainable forestry
- Biodiversity conservation
- Green Managers/Sustainability officers for all types of industry (people that are able to measure, manage and reduce GHG emissions from any organisation)
- Electric engineers (electric vehicles, solar panel installers and repairs)
- Urban planning – Smart cities and sustainable transportation systems
- Environmental Data Analysis

**Renewable resources:** What jobs are required to ensure Nepal can sustainably use natural resources?

- Developing 100% renewable energy: solar, hydro and wind
- Water recycling and repurposing systems
- Waste management and recycling centres
- Conversion of Waste to energy

There are already companies in Nepal providing sustainable energy solutions that could be involved in the development of occupational standards and programmes to ensure young generations are upskilled to fulfil those future jobs, for example

**Statkraft:** Entered Nepal in 1993 for the development of the Khimti hydropower plant at Kirne, 100km east of the capital Kathmandu. The power plant is owned by the subsidiary Himal Power Ltd (HPL) and accounts for nearly 15 per cent of Nepal's total electricity production.

**Peak Power Pvt. Ltd:** Is the authorized partner for SMA Sunbelt Energy GmbH and Victron Energy B.V. The Peak Power team has over 30 years combined experience delivering fully integrated power systems.

Peak Power is a Nepali-Australian company with all of the management residing in Nepal full time and involved in all aspects of the business and their work. They are committed to the sustainable development of the energy sector in Nepal and to sustainable and reliable energy solutions for customers and partners.

Established in 2012, the company provides solar consultancy and installation on projects as important as a UN partnership with GSOL ENERGY based in Denmark, and as diverse as a series of remote outreach clinics belonging to Dhulikhel Hospital.

Their services include Solar PV, Wind, Battery Backup Systems, Microgrids, EV Charging systems & Solar Water Pumping

Educational institutions and the private sector can harvest the knowledge from companies that are already established in Nepal, to commence the development of occupational standards and curriculums right now, to be enable and educate people to fulfil green jobs in the next few years and ensure Nepal is on a path to adapt and mitigate to the risks of climate change.

## CASE STUDY: COMFORT FELT &

Examples of sustainability within business can be found in every country, although business owners may not be able to relate their own business practices to sustainability and sustainable development.



WATCH NOW

**Anup Manandhar** is the owner of Comfort Felt and Craft.

His career in this field started in 2002 when he joined the renowned non-profit organization, ACP (Association of Craft Producers) as a Trading Officer. Anup got the opportunity to work on different department with different job responsibilities learning the concept of Fair Trade and it's many social benefits and compliances.

In 2005 Anup made a visit to a shoe making company in Denmark named Glerups.dk and this was the start of his dream to make a similar type of felt shoes back in Nepal. I had even given presentation back to the same organization, ACP how the things can be done in the context of Nepal. In 2006 Anup became the manager of a new Danish/Nepalese shoe making company, working there for almost 8 years as a manager and partner.

**WE INTERVIEWED ANUP TO LEARN MORE ABOUT HIS BUSINESS JOURNEY:**

**Anup says:** “I always used to dream about being the best felt shoe manufacturer. And I want to be an example where I have happy workers making branded shoes. I always feel that every worker in my company should be happy, motivated and of course loyal. Literally on 2014 July, I started my own company with the partnership of my own school friends.”

**Social Sustainability: What type of employees do you have and what does employment mean for them and their families?**

We employ local women to help us make our shoes. We spread the message for hiring new girls/women. We even request to our existing workers if they have any references or if somebody is looking for job.

We do not require any academic degree to work on felting shoes. No matter the new hiring women are literate or illiterate. No previous training is needed, because we give basic 7 days training on making felt shoes free. Then after there will be probation period of 3 months, where we pay them basic salary. Then after 3 months period, we hire them as permanent staff with monthly wages of Rs 15,000/month and they can have all other benefits including salary.

We pay them additional Rs3,500/month other benefits. They are also paid one month extra salary for festival allowance. Some of the other social benefits are as given below that our employees get

1. 1 Day paid leave on every month.
2. If no leave is taken extra Rs 500 (\$4) will be added on their wages as appreciation bonus.
3. End of the every year, if they have such leave saving days, then we pay them double the salary for each leaving saving days. Like if they have 5 days leave saving, then we pay for 10 days wages, if they have 12 days leave saving then we pay for 24 days wages.
4. Meeting the monthly production target, employees will get extra Rs 500 as bonus on their wages.
5. Besides the leave day facilities, we have total 19 days leave for various festival throughout the year.

6. There is 7.5 hrs working hours including half an hour for lunch. If women have to work for extra shift like, 3 hrs morning or evening shift, then we pay for 4.5 hrs wages plus meal and tea/biscuits facilities. Same is the case if worked for weekly off day. They will be paid for 1.5 days extra and lunch facilities.
7. The company also pays Rs 1000/month as school fees for each school kids of every employee, and maximum for 2 kids till high school. This is to motivate employees to send their kids school.
8. There is 45 days of paid maternity leave.
9. There is 13 days of paid mourning leave in case of death of family/parents.
10. Accidental Insurance is done for all employees
11. Employees can get benefits of vehicle loan of Maximum Rs 200,000 (\$ 1600), if they want to buy 2 wheeler for transportation.
12. Every year the company increases their wages by 8 to 12% on the base of annual financial status. But from the establishment date to till now, there is increment every year even during the time of Covid Pandemic.
13. Company has allocated the Provident Fund for employees, from which the employees can have different financial support and benefits.
14. Being the employee of our company, our workers are able to support their family on household expenses. Some are even making fully expenses for family as their husband has no jobs.
15. Company also allocate bonus of 10% on profit. We are able to distribute bonus since fiscal year 2017/18 to till 2021/22 (expect the year 2019/20; due to pandemic period)

### What environmental protection actions have you implemented at the business?

Our production needs lot of water, and we use hot water to do felting.

When we have peak production, we consume more than 1000 litres of hot water each day. And for this purpose, we need fuel. At the beginning, we used LP Gas for boiling water. We even tried on diesel burner. When we noticed this is too costly, then to minimize the production cost we use firewood as fuel to boil the water. This has of course lowered

the cost with compare to previous two options of fuel. But we burnt lots of firewood. Almost 5000 kgs in a month costing around 50 to 55 Thousands rupees.

If we compare to earlier two options of fuel, it was OK. But when I use to see smoke coming out from the fireplace very often, me myself felt some kind of pain. Not only that, when I used to see huge pile of firewood, I was forced myself to think that, I am also one of the cause of deforestation. My God! What am I doing? This has really hurt me from inside.

Not only that, we had faced few times complaints from neighbours when our workers put plastics and leather/hide pieces to start firing. Then bad smells spread on surrounding. Then I came to think what will be the permanent solution where I can save my cost and avoid all such issues. I thought to correct myself. If I am doing business, then I must not spoil the environment, I must not hamper and put neighbour on problem. That way I may be earning profit, but not respect and self-satisfaction.

Fortunately, I got the information about electric boiling on one of the programmes. Then instantly I talked with the supplier about the efficiency and costing for the boiling system. I got to see lot of advantages by installing the system, then instantly we go for it.

Surprisingly, there was huge cost saving. When I checked my electricity bill, there was not much increment on bills. It was like 3000+ on the top that we used to pay on earlier months. But on next hand, I am saving cost of firewood. This is direct saving. Not only that, we are now smoke free area. Also our workers do not have to go up to fireplace to get hot water. We make the supply system of hot water on each and every working table.

This will make our employee comfortable and save some time every day. In result we can expect more good quality and efficiency of our workers. No any complains form neighbours, even our workers also don't have to suffer smoke. So, in conclusion there may be one direct benefit of cost saving, but lot more other social benefits. We even don't need more space to keep stock for firewood.

#### HOW THE BUSINESS HAS GROWN OVER THE YEARS

From the beginning, we were on increasing trend except on pandemic period. During pandemic, we had loss on our financial report. But that was obvious as we could not make sales for 6-7 months. Our entire production was closed down for around 2 months. Comparing to previous fiscal year, our sales has grown up by 33% on 2021/22. But from

our current experience after installing the electric water boiling system, we can predict that keeping the same increment of growth, we still have more ratio of profit like around 5 to 6 Hundred Thousands Rupees extra. Meaning we will have more ratio of profit keeping the other factors as it is. Our production capacity has also gone up. As the installation of water heating system was done only 3 months ago, we do not have yearly comparative study/data on this.

#### HOW DOES YOUR BUSINESS ALIGN WITH THE CIRCULAR ECONOMY

In our factory, we used to have lot of wastage of split skin hide on small pieces. Some time even bigger sizes as we could not use due to quality issues. Every day, we have 120 to 150 pairs of shoes production and on the same ratio we cut out the leather sole. We also use rubber foam insole.

The small cut pieces has become now big headache for us. Even the garbage collector refuse to take them away. We have had frequent discussions with those garbage collectors. Even we have been charged double the monthly fees than regular, they refuse to collect leather pieces and rubber foam cut pieces. Sometime, our workers tried to burn them down. But all that smoke and bad smells give me mental pressure to think about the right solution.

Then I came with mind that, instead of just throwing those cut pieces, why not make small money. Then I think to make small key rings from those leftover pieces. May be we put some brand (print logo/name), and sell them. This way we can minimize our cost and in return we will be earning some extra money. That way, we think on these issues and very soon we will be implementing and go into action on this project.

#### WHAT ELSE DOES THE BUSINESS TO ALIGN WITH A SUSTAINABLE ETHOS?

After doing remarkable changes like we mentioned above, our workers have also been little aware about the environmental issues. I also explained why we install the electric water heating system. Not only to make them easy on working, but also to be clean and environmental friendly. So, now they have been used to and now they don't like to burn firewood. They are very happy just because they don't have to face the smoke problem

time to time that used to make tears on their eyes. And needless to say no complaints from neighbours. One of my workers used to engaged for 2-3 hours every day just for cutting the firewood into small pieces. Carry and transport those cut pieces to fireplace. Now he is totally free for that job. Not much physical strength on this job. And we can divert him for another task for those hours. Our women are excited and felt so comfortable when they have hot water and cold-water supply direct to their working table.

By the way relating to such social compliances, we had also installed the RO water purifying system, so that all our workers have pure and clean drinkable water. Before that, we use to buy jar water and also bring 15 jars of water every couple of day far from 3 km from our office van. This also cost fuel for vehicle. And needless to say that, where there is up and down of vehicle, of course there is carbon emission. After installing the RO water purifying system, we are using our own source of water (well, underground water source) for drinking water. And the residual or non-drinkable water coming out form system is used for production. This has saved the fuel of vehicle, our manpower to load the jars and of course time.

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