



LEBANON CLIMATE ACT

HOW TO CREATE VALUE FROM CLIMATE CHANGE

A GUIDE FOR YOUR COMPANY IN LEBANON





HOW TO CREATE VALUE FROM CLIMATE CHANGE

A GUIDE FOR YOUR COMPANY IN LEBANON

An Initiative by:

Green Mind NGO

United Nations Development Programme

In partnership with:

Banque Du Liban

In cooperation with:

Ministry of Environment

The Federation of Chambers of Commerce, Industry and Agriculture in Lebanon



How to create value from climate change

A guide for your company in Lebanon

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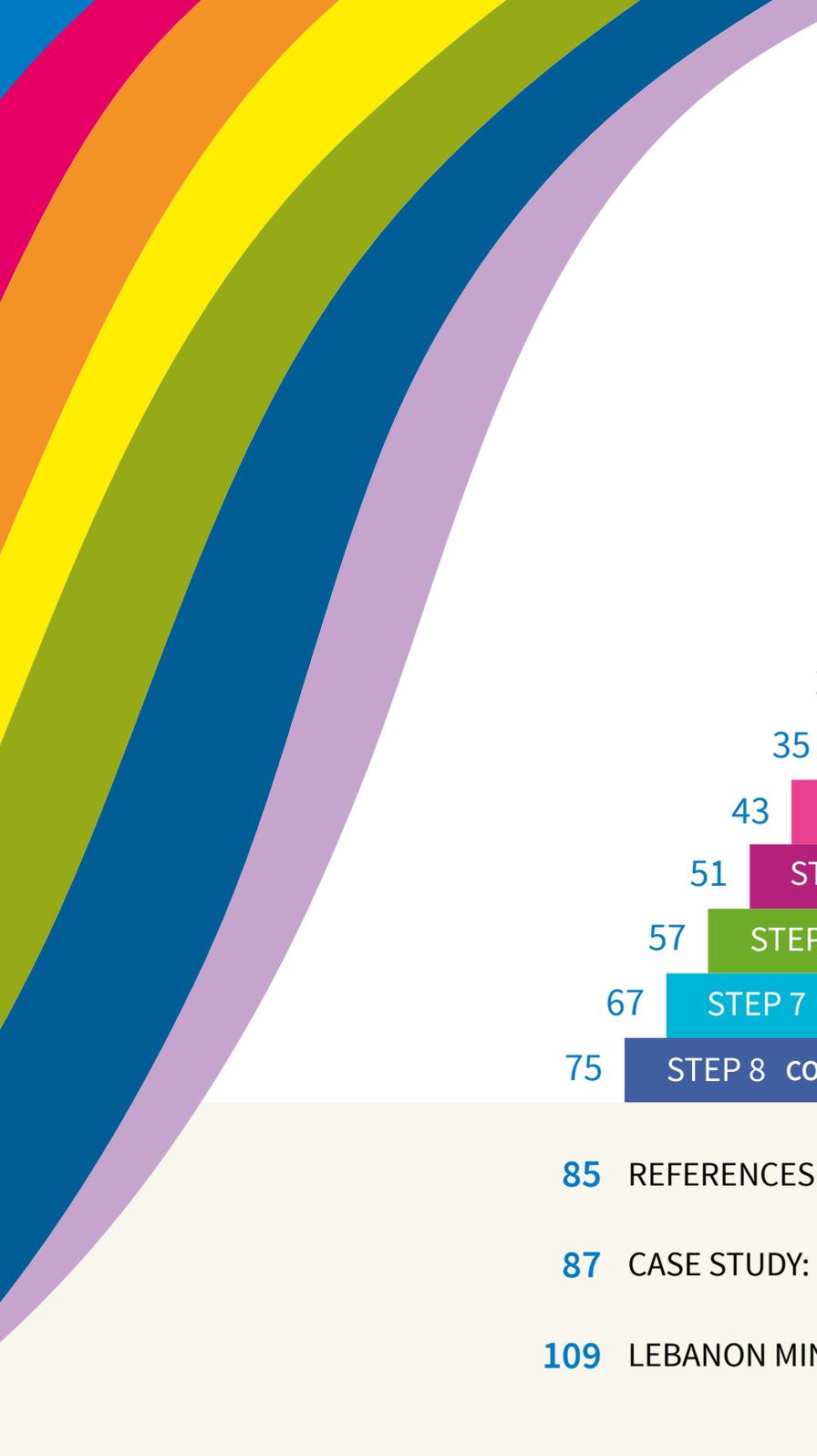
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Green Mind is a Non-Governmental Organization, registration number 1454, established in 2012 by a group of Lebanese professionals with a vision to create and promote sustainability practices in Lebanon and the MENA region.

For years, Green Mind NGO has worked on promoting the reduction of carbon emissions of Lebanon through several initiatives and projects. From encouraging green transportation, to organizing green awards programs recognizing key sustainability initiatives done by both the public and the private sectors in energy efficiency, water efficiency, waste management etc., Green Mind has been able to target and impact different society groups such as women, students, businesses, leaders and the general community.

In 2015, Lebanon has submitted its INDC (Intended Nationally Determined Contribution) where it has committed to reduce its carbon emissions by setting an unconditional target of 15% CO₂ emissions reduction by 2030, and 30% CO₂ emissions reduction conditional to finance, technical support and capacity building. Following to such commitments, Green Mind NGO has joined hands with two key Partners to help Lebanon achieve its promises: the United Nations Development Program in Lebanon, and the Banque Du Liban.

Together, and in cooperation with the European Union ClimaSouth team and the Federation of Chambers of Commerce, Industry and Agriculture, we were able to launch the Lebanon Climate Act program. The main aim of the program is to encourage economic growth by addressing Climate Change challenges and to expand the opportunities for collaboration between the private sector and the civil society organizations on the climate change topics.

Through the Lebanon Climate Act program, many companies of the private sector have proven and continue to prove their true climate leadership and sustainability commitments. We strongly believe in these Climate Change Champions, and are keen to continue our mission to make Lebanon a leader amongst the actors against climate change in the MENA region.

Nada Zaarour, *President*
Green Mind NGO





Governments, businesses and citizens of the world have many opportunities to seize from the shift to low-carbon economic growth, in the era of the Paris Agreement on climate and of the Sustainable Development Goals (SDGs). Many companies all around the world are already embracing the transition towards a low carbon, climate-resilient, economy. These investments are creating new markets, while innovative technologies ensure the long-term viability of business activities, promote socio-economic benefits and minimize adverse environmental impacts. But many companies are still to capitalize on this new global opportunity being created through innovation, evolving consumer expectations, new regulations and the increasing impact of climate change.

The Lebanon Climate Act was created in order to mobilize the private sector to take part in the momentous global transformation called upon in the Paris Agreement. The project is a joint initiative by Green Mind NGO and the United Nations Development Programme (UNDP) in Lebanon, in cooperation with the Ministry of Environment and The Federation of Chambers of Commerce, Industry and Agriculture in Lebanon and in partnership with the Banque du Liban.

The present guidebook is a concrete outcome of the first year of the Lebanon Climate Act. It has been produced with support from the ClimaSouth project, funded by the European Union (EU) to assist partner countries in the South Mediterranean region towards low carbon development, while building climate resilience. Through this initiative, the ClimaSouth project aims to contribute to the collaborative and solution-oriented engagement of the Lebanese private sector, as a key driver of the transformational change required for the emergence of a low-carbon economy in the country. It also aims to generate lessons which may be cohesively up scaled in the wider Mediterranean region, with businesses inspiring governments to greater ambition in moving towards a low carbon economy that reconciles climate objectives with competitiveness.

The guidebook gathers lessons learned based on experiences and exchanges with the champion companies that are members of the Lebanon Climate Act and have been developing their climate strategies during the past year. The guidebook is designed to assist companies in Lebanon to kick start their process of corporate climate action under the Paris Agreement, to further their commitments and to measure progress according to appropriate economic and environmental indicators.

UNDP climate change projects and the EU-funded ClimaSouth project will continue to engage with all actors to foster ambitious transformative climate actions, and to showcase that implementing the provisions of the Paris Agreement leads to increased economic and social opportunities and job growth. Through the leadership of members of the Lebanon Climate Act, we hope to demonstrate that the spirit of the Paris Agreements is inseparable from the Sustainable Development Goals.

*UNDP-Climate Change Project Team
Ministry of Environment, Lebanon*

*ClimaSouth Project Team
EU - funded Regional Project*



How to use this guide?

Why do I need a sustainability guidebook on climate change?

Climate change is a global challenge which is affecting every part of the world, disrupting national economies and affecting communities. Lebanon is not an exception. Although Lebanon's share of global greenhouse gas emissions isn't high (0.07% of global emissions), the country has demonstrated its commitment to combating climate change by signing the Paris Agreement and motivating all actors to act responsibly through targeted sectoral policies.

The business sector in particular has a key role in combating climate change. This role has been emphasised over the recent years via international movements and agendas, and carved in the Paris Agreement.

This guidebook was created as a tool to help businesses in Lebanon ride the international climate change wave and develop and implement a plan to effectively take part in climate change action on the scale of each business.

Who is this guidebook for?

This guide is primarily intended for businesses in Lebanon. It is a valuable source of information as businesses work to gain a better and deeper understanding of the risks that climate change poses to the modern world and capitalise on opportunities arising from climate change. The public and civil-society actors will also gain insights on how companies address climate change in their strategies. This could be a valuable way to foster multi-agent partnerships and develop climate change initiatives.

How will this guidebook help me?

This guide is organised in eight steps. Each step will help you develop a set of concrete actions to align the environmental actions of your sustainability strategy with your stakeholders' requirements as well as the government's commitments. It will help maximise your economic profit and develop strategic partnerships. The eight steps will guide you in building a dedicated task force for climate action, developing a strategy and action plan, measuring your greenhouse gas emissions, using tools to reduce your climate change impact and communicating effectively your strategy and commitments. This guide contains exercises and relevant advice related to the most practical aspects of the development and implementation of a corporate climate change strategy. A case study at the end of the guidebook will give you a concrete example of the practical application of the tools presented.

How should I use this guidebook?

This guide can be used in several ways. If you're just beginning your journey in climate change, we recommend that you read the guide from the beginning, in a sequential way, following the order of the chapters presented. If your company has already taken actions in this area, then you can focus on the steps that remain to be implemented. The guide can also be used as a learning tool for new members of your team, colleagues from other departments or external stakeholders with whom you'd like to start joint initiatives. Finally, you may have already started climate-friendly actions without knowing it as part of your business' cost-optimisation strategy. This guidebook will help you identify which of your actions could serve as a basis for climate change activities.



Understand Sustainability & Climate Change

Sustainable Development Goals: Agenda for Achieving Sustainable Development

- The most widely accepted definition of sustainable development defines it as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (1987 Brundtland Commission report – Our Common Future).
- For sustainable development to be achieved, it's crucial to harmonize three core elements: economic growth, social inclusion and environmental protection. These elements are interconnected and all are crucial for the well-being of individuals and society.
- Sustainable development calls for concerted efforts towards building an inclusive, sustainable and resilient future for people and the planet. Private companies play an important role in promoting and safeguarding these core elements and securing economic prosperity based on sound social and environmental practices.

THE SUSTAINABLE DEVELOPMENT GOALS¹

It was on 25 September 2015, at a historic UN summit, that world leaders adopted a set of goals to **end poverty, protect the planet, and ensure prosperity for all**, as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years. For the goals to be reached, we must all do our part. This includes governments, the private sector and civil society.

¹ <http://www.un.org/sustainabledevelopment/sustainable-development-goals>

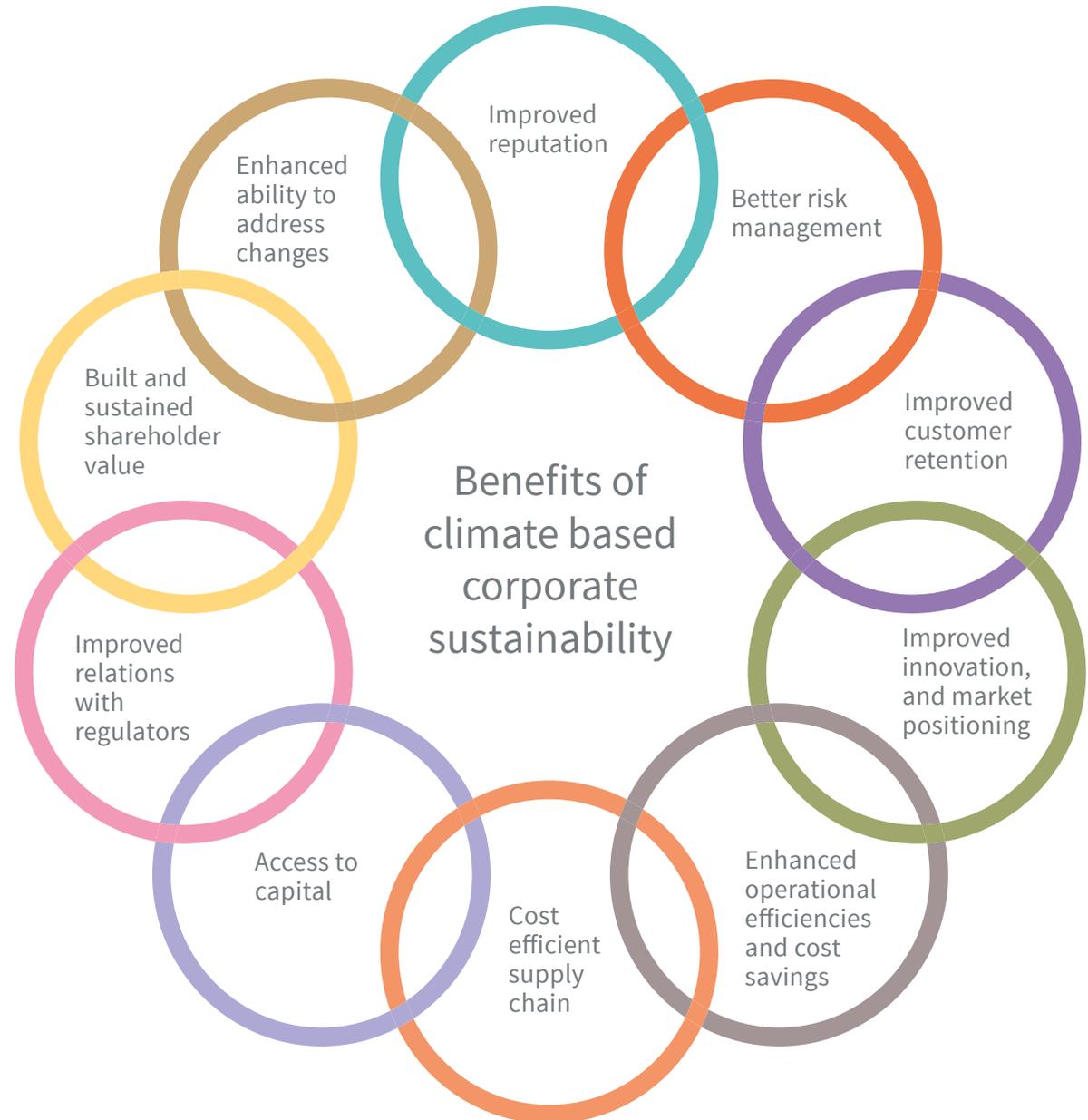
SUSTAINABLE DEVELOPMENT GOALS



A Sustainable Company in the Era of Climate Change

Corporate sustainability, also known as Corporate Social Responsibility (CSR), is a management model that promotes decision-making which balances the environmental, social and financial aspects to ensure responsible performance. It refers to the practice of focusing, and accounting for impacts on the environment, society and economy and places emphasis on making holistic decisions for creation of value.

As companies appreciate the concept of CSR, they must acknowledge that overlooking climate change can compromise the successful implementation of balanced actions. With the many sectoral ramifications of climate change causes and impacts, it's only through a transition to a low carbon climate resilient economy that sustainable economic growth can be secured. Various platforms, including “we mean business” (<https://www.wemeanbusinesscoalition.org>) and “Bcorporation” (<http://bcorporation.eu>) are available to support companies to create prosperity for all.



Climate Change – Global Challenge

There is unequivocal scientific data that Earth's climate is changing. Average temperatures are steadily rising. Rainfall quantities, patterns and geographic distribution have become drastically variable. Snow altitude is shifting, and extreme events like heavy rainstorms and floods, heat waves and droughts are becoming more frequent. These are all signs of climate change.

What is climate change?

Climate Change is a combination of changes in the climate characteristics resulting in an increase of severe weather events: floods, droughts, rising tides, ocean currents etc.

What are the causes of climate change?

Climate change is due to the increase in the concentrations of Greenhouse Gases (GHG) in the atmosphere.

What are the greenhouse gases?

Greenhouse gases (GHG) are atmospheric gases that absorb infrared radiation from the sun but don't let it escape the atmosphere. They include CO₂, CH₄, N₂O, O₃, CFCs, HCFCs, HFCs, PFCs and SF₆. Their concentration in the atmosphere have been increasing since the industrial revolution.

What are the sources of greenhouse gases?

There are two main sources for the GHG emissions: natural and anthropogenic sources. Natural sources include animal and plant respiration. Anthropogenic sources are due to human activities, mainly from the burning of fossil fuels to produce electricity, heat, to power transportation, as well as from industrial processes like the production of cement, land-use change, waste and wastewater management, and agriculture practices.

What is carbon footprint?

The term "carbon footprint" refers to the total amount of GHG released into the atmosphere by a certain entity, which can range from an individual to the Earth. These gases are estimated in CO₂ equivalent by converting the global-warming potential of each GHG relative to CO₂.

What are the impacts of climate change?

The impacts of climate change include rising sea level, disruption of linkages in ecosystems, extreme weather events, water shortages and food insecurity, diseases and other associated health effects. Ultimately, they increase mortality rates, social disruption and population displacement, and negatively impact businesses.

The Paris Agreement

In order to combat climate change, 195 countries agreed to work to limit the global temperature rise below 2 degrees Celsius and strive for 1.5 degrees Celsius (1.5°C). This significant decision was made at the 21st Session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC)², which took place in Paris on 12 December 2015. The Paris Agreement went into effect less than a year later.



Greenhouse gas emissions are now at their highest levels in history, and they continue to rise. Without action, the world's average surface temperature is projected to rise over the 21st century and is likely to surpass 3 degrees Celsius (3°C) this century.

² https://ec.europa.eu/clima/policies/international/negotiations/paris_en

The importance of the Paris Agreement for business

The Paris Agreement, highlighted the role businesses can have in tackling climate change and formally recognised, for the first time, that the private sector is an integral part of the global solution to address climate change. Consequently, CEOs from more than 150 countries and territories drafted a letter to enforce their engagement. They pledged to limit their environmental impact and carbon footprints, and to set reduction targets for their GHG emissions and/or energy consumption. Additionally, they agreed to collaborate in supply chains and at sectoral levels³.

As of April 2017, 195 UNFCCC members have signed the Agreement, 143 of which have ratified it.

Adaptation and Mitigation

- Adaptation and mitigation approaches, as discussed in the Paris Agreement, are complementary approaches to combat climate change. They require very different types of policy response and corporate strategies⁴. Mitigation focuses on the causes of climate change, while adaptation is concerned with the impacts from climate change.
- Many companies have well-established strategies for the reduction of greenhouse gas emissions, but relatively few have comprehensively tackled the challenge of adapting to changing climate conditions. Some examples are mentioned below in Figure 2⁵.

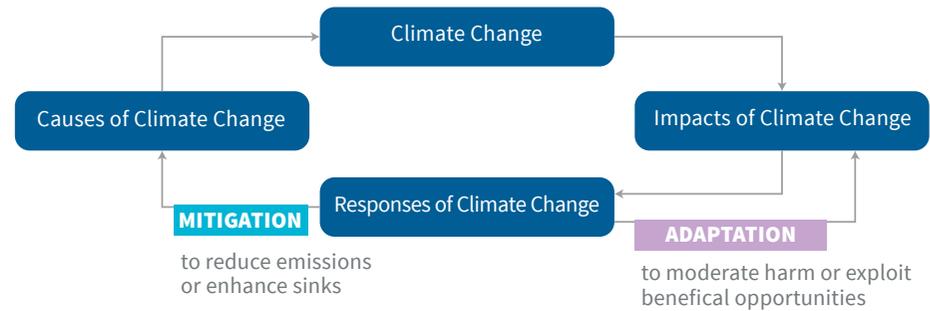


Figure 1: Difference between adaptation and mitigation

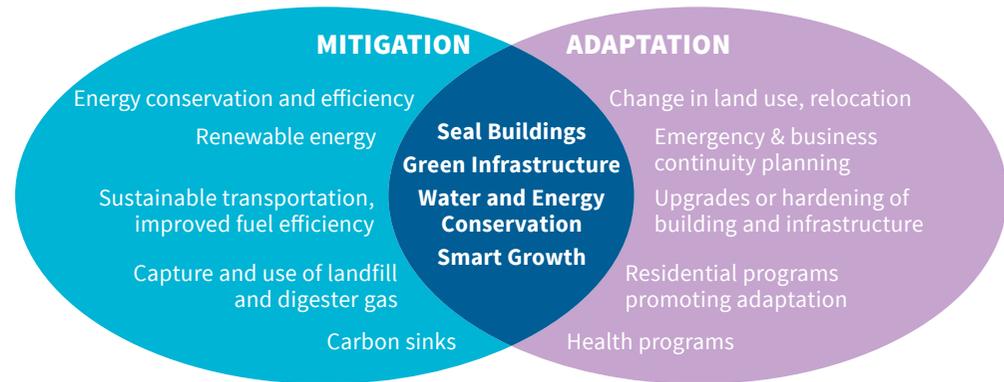


Figure 2: Examples of adaptation and mitigation activities



NATIONALLY DETERMINED CONTRIBUTIONS (NDC)

As an outcome of the Paris Agreement, all parties need to implement “nationally determined contributions” (NDCs), and report regularly on their emissions and the progress of their efforts. Concretely, this means the Paris Agreement puts into force a country-driven process to achieve global climate goals. This approach is creating momentum in terms of improved climate legislation and national guidelines, and is driving more environmentally friendly business decisions. The Paris Agreement calls parties to include adaptation planning as well as mitigation actions into their national strategies.

³ <https://www.weforum.org/agenda/2015/11/open-letter-from-ceos-to-world-leaders-urging-climate-action/>

⁴ World Resources Institute: <http://www.wri.org/blog/2015/05/insider-case-establishing-five-year-cycles-paris-climate-agreement>

⁵ <http://www.civildaily.com/blog/unfccc-paris-via-kyoto/mitigation-and-adaptation/>

Lebanon and Climate Change

Although Lebanon's share of the global GHG emissions is just 0.07%, climate change will cause serious problems for the Lebanese environment and economy⁶. As seen in figure 3, energy, transportation and waste are the main sources⁷ of the country GHG emissions. Tackling these sources, and mitigating the GHG emissions while reducing the risks from climate change are the main governmental challenges to boost the economy. Contrastingly, the private sector's challenges are to stay current with the new green technologies, train their team and align themselves with local policies as well as financial mechanism to benefit from the Paris Agreement and reduce the risks of climate change. Figures 4 and 5 summarize the risks and opportunities faced by businesses.

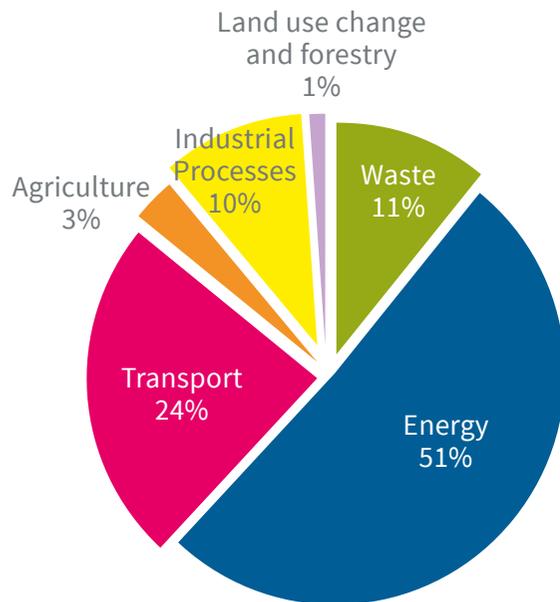


Figure 3: Sources of GHG emissions in Lebanon

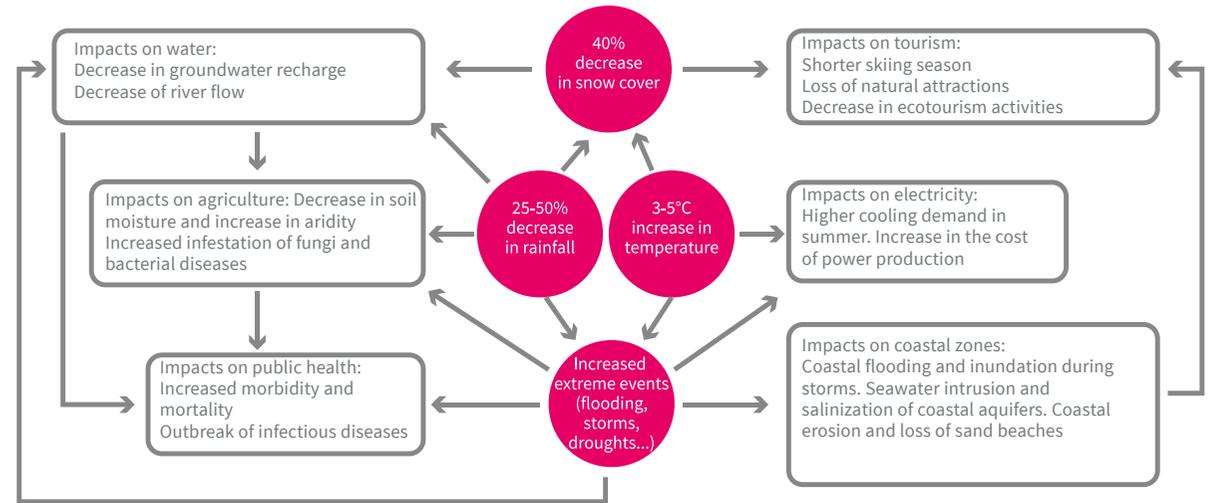


Figure 4: Impacts and vulnerabilities from climate change on Lebanon

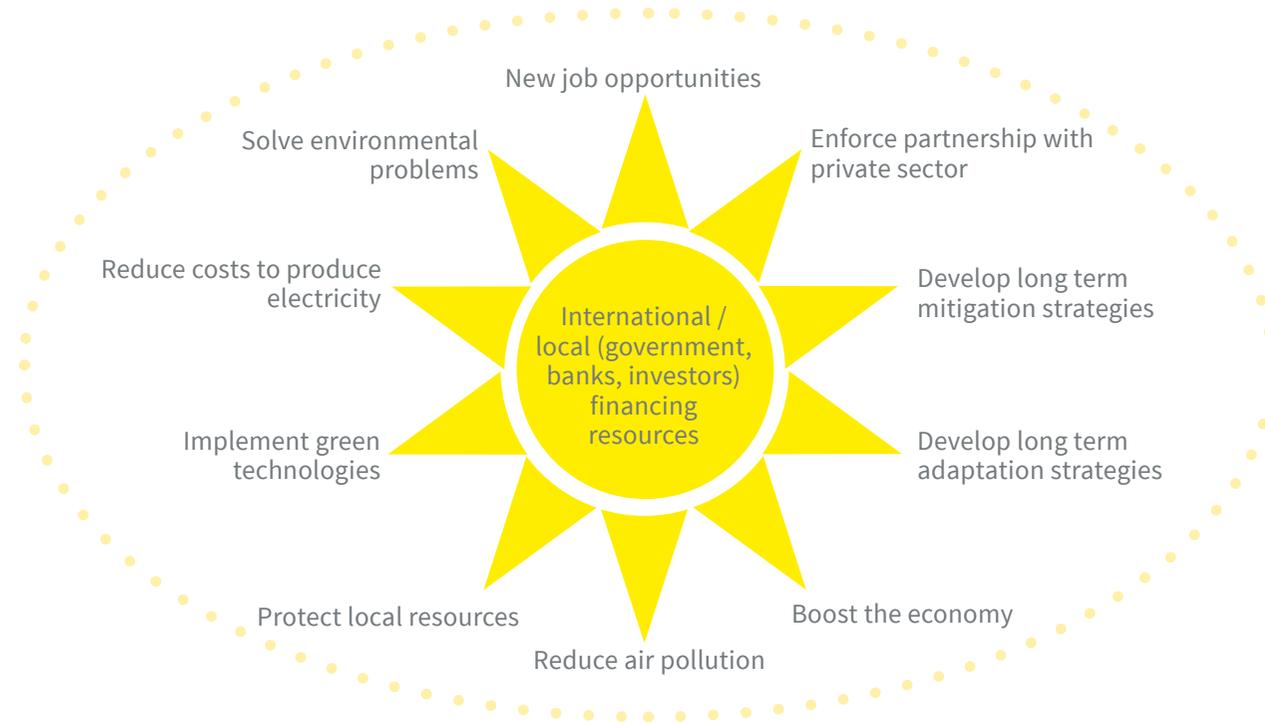


Figure 5: Opportunities from climate change on Lebanon

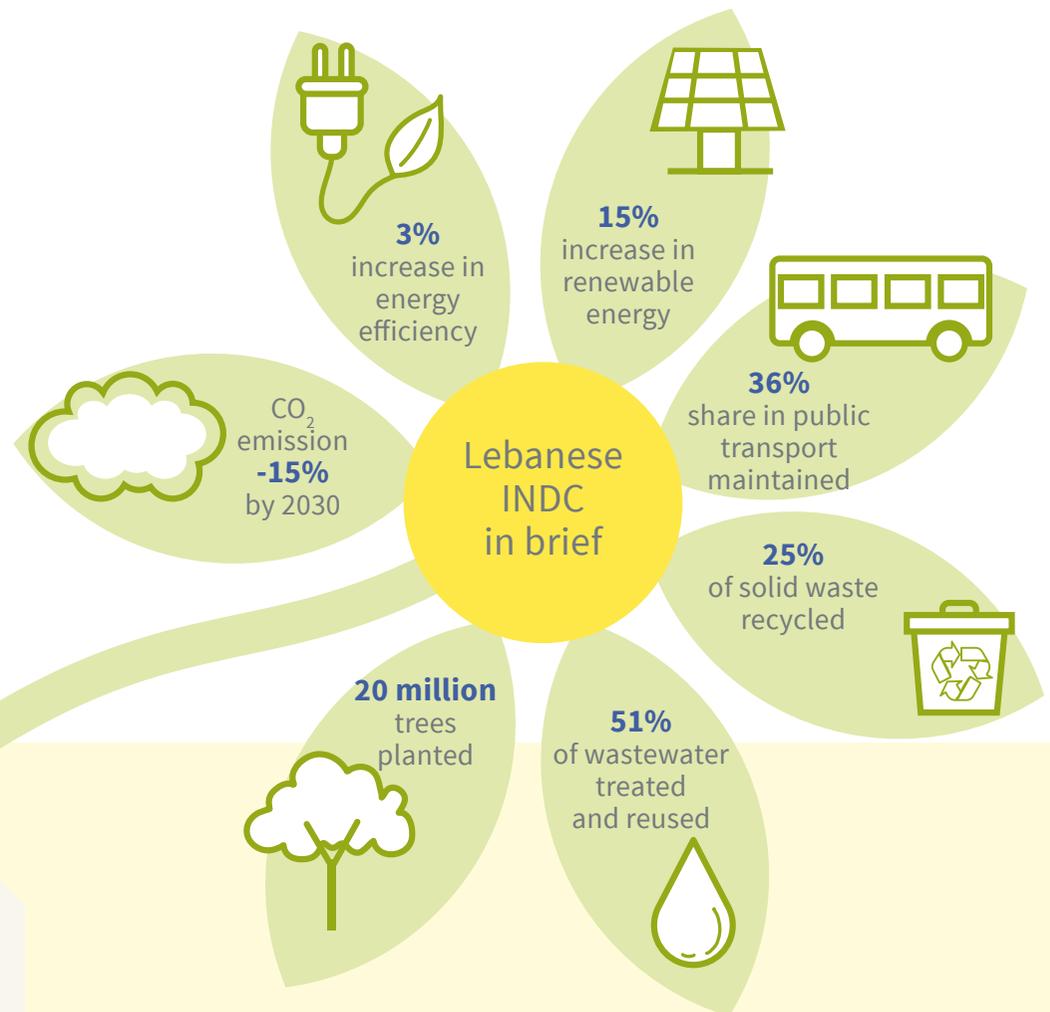
⁶ Teacher's guidebook on climate change for schools in Lebanon

⁷ MoE/UNDP/GEF, (2016). Lebanon's Third National Communication to the UNFCCC.

Lebanon's Commitment to Combat Climate Change

In compliance with the provisions of the Paris Agreement, Lebanon published its Intended Nationally Determined Contribution (INDC) to mobilize international finance and set a long-term strategy to reduce national GHG emissions and improve resilience to negative impacts of climate change.

The INDC also comprises Lebanon's gaps and needs that are expected to hinder or slow down efficient and ambitious implementation of nationally set mitigation and adaptation targets. The INDC is becoming the climate action road map for the Lebanese government for the 2030 horizon. The strategic inclusion of climate change by businesses in their agenda guarantees their alignment with the international momentum on climate change governance and improves their market competitiveness. To maximize the economic profit for both government and business, and have a successful INDC, government and business should complement each other; while the first should pave the path (legal, infrastructure, capture financial donations), the latter, businesses, should strive to mirror the efforts.



GREEN LOANS – ASK YOUR BANK!

The Lebanese government is working, via the Central Bank (Banque du Liban - BDL), on green interest-free long-term loans to help the residential, commercial, non-profit and industrial users reducing their GHG emissions. The “National Energy Efficiency and Renewable Energy Action” (NEEREA) is an example of a national financing mechanism initiated by the Central Bank of Lebanon dedicated to the financing of green energy projects in Lebanon.

Climate Change – Risks and Opportunities for Businesses

The Paris Agreement opened the door for business opportunities arising for the private sector. Being aware of the risks and opportunities, hundreds of CEOs engaged in the Paris Agreement, and issued the “Open letter from CEOs to world leaders urging climate action”⁸. Following the COP21, it has become clear that the private sector worldwide can and must play a leading role in the struggle for a greener future. In addition, a bigger emphasis is put on the relationship/partnership between the private and public sector, as a tool to maximise the value creation for all parties from climate change actions.

RISKS

CLIMATE CHANGE RISKS FOR THE PRIVATE SECTOR:

- **Reduction in productivity due to:**
 - Reduction of working hours due to extreme weather events
 - Stresses related to the increase of living costs
 - Increase in sickness leaves
 - Decrease in employees’ retention
- **Increase in running costs due to:**
 - Increase of electricity bills due to running AC
 - Increase of electrical shortages due to the high demand on electricity
 - Increase of water costs, due to its scarcity
 - Increase of raw material prices (cotton, agriculture products...)
 - Increase in shipment costs (higher insurance costs and longer distances to ship products)
- **Increase in insurances’ prices, reduction in loans in high-risk locations**
- **Increase in risks of floods, fires, earthquakes**
- **Loss of touristic scenes**
- **Deterioration of qualities and quantities in the agricultural sector**
- **Diverge investments towards other corporate entities**



In Lebanon, the total costs of climate change on the economy might equal USD 1,900 million in 2020, rising to USD 138,900 million in 2080. These costs may include higher food prices, higher electricity and heating/cooling bills, increased expenses on leisure activities like skiing and hiking, increased health care cost, etc.

MoE/UNDP/GEF (2016). Economic Costs to Lebanon from Climate Change: A First Look. Beirut, Lebanon.

OPPORTUNITIES

CLIMATE CHANGE OPPORTUNITIES FOR THE PRIVATE SECTOR:

- **Engage employees in social/teamwork by developing adequate adaptation strategies:**
 - Recycling and up-cycling in-house activities
 - Environmental activities like planting trees
 - Competitions to reduce their household emissions
 - Flexible working hours
- **Reducing running costs via:**
 - Energy efficiency
 - Increased dependency on renewable resources
 - Increased dependency on recycled and treated water
 - Creating/innovating new raw materials
 - Improving and shifting local resources of raw material
 - Restructuring shipments in less risky seasons
- **Increase market penetration, by opening new markets, or communicating with environmental friendly customers**
- **Comply with international regulations**
- **Put your business in par with regional and multinational organisations extra exposure via green activities**
- **Develop new partnerships with NGOs, governmental bodies, environmental conscious companies**
- **Attract investments**

⁸ <https://www.weforum.org/agenda/2015/11/open-letter-from-ceos-to-world-leaders-urging-climate-action/>

Develop your Climate Change Strategy

As presented in the previous chapter, climate change can be both a threat and a great opportunity for the private sector. In order to capture the value from climate change, it's recommended that you develop a structured approach by which to explore different avenues and maximise the potential of human resources and technology. Your climate change strategy can be developed through an eight-step journey. Each step of the process has specific objectives and a set of activities that can be implemented.



STEP 1: IDENTIFY YOUR CHAMPIONS

Objectives: Identify the right people to drive climate change internally



STEP 2: IDENTIFY YOUR STAKEHOLDERS

Objectives: Identify the stakeholders who are critical to the success of your climate change strategy and actions



STEP 3: DEVELOP A VISION AND POLICY

Objectives: Develop a guiding climate change vision and policy for your company



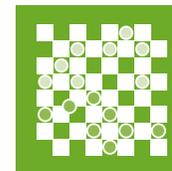
STEP 4: DETERMINE THE IMPACT OF CLIMATE CHANGE ON YOUR COMPANY

Objectives: Determine how climate change can affect your business operations?



STEP 5: MEASURE YOUR CARBON FOOTPRINT

Objectives: Measure the carbon footprint of your company and identify how your company contributes to climate change



STEP 6: DEFINE YOUR STRATEGY AND CLIMATE ACTION PLAN

Objectives: Develop an appropriate strategy and plan for your company and select the best actions to implement



STEP 7: EVALUATE AND IMPROVE

Objectives: Improve your performance and maximise the benefits from your climate change actions.



STEP 8: COMMUNICATE AND CELEBRATE

Objectives: Identify the best ways to communicate climate change internally and externally to achieve your goals

STEP 1



Identify your champions

STEP 1 Identify your champions



According to the World Economic Forum's 2017 Global Risk Assessment Report, climate change is among the most important trends in shaping global development in the next 10 years. As your company starts the journey for climate change, you will need to increase understanding of climate change concepts, risks and

opportunities and retain momentum internally. A good starting point is to appoint motivated employees to lead on this matter. Identifying champions for climate change in your company is a critical step that will help you plan and implement a successful climate change strategy.

IN THIS STEP YOU WILL LEARN:

- 1 Identification of climate change champions
- 2 The role of a climate change champion
- 3 Importance of creating awareness internally

Identify your climate champions

- 1 Climate change champions are motivated and dedicated employees within your company. They can come from different department, including environment and sustainability, or from business units and executive leadership.
- 2 Climate change champions' role entail: leading efforts and inspiring people to develop climate change solutions, communicating climate change risks and opportunities, identifying gaps and addressing needs of stakeholders inside and outside the company. You can brainstorm with your champions additional or more tailored tasks to be undertaken by them.
- 3 Climate change champions will be sure to integrate climate change priorities as defined by the company across all areas of business operations and strategy, and must be able to influence executive decision-making processes.
- 4 Climate change champions have to find the means and identify the partners who will help them tackle climate change in their companies as well as support the communities in which they operate.



Importance of the Climate Champions

Especially during the early stages of your journey, and as you devise your strategic plans to meet your goals and targets (STEP 6). The role of the climate change champions is critical, as they will be entrusted to:

- **Motivate and encourage contribution.** The champion can mobilise certain employees whose skills and knowledge are important.
- **Provide tools.** The champion can conduct research and recommend tools that are relevant to the business and are proven effective in similar assignment.
- **Respond to questions,** provide insights and clarifications. The champion is the point of contact.
- **Assist employees.** The champion should connect employees' tasks with the corporate strategy, Lebanon's targets and international agendas. Champions build their climate change knowledge to be able to support employees to see the big picture.
- **Follow up on implementation.** The Champion should identify bottleneck situations and should recommend solutions to guarantee timely implementation of tasks and track results.
- **Ensure inclusion.** The champion will include all relevant departments to ensure inclusive approach and increase buy in.
- **Identify new initiatives.** The champion recommends new initiatives that can add demonstrable value to the strategy and help achieve the set targets.
- **Increase the transparency.** The champion will report on the project to increase transparency and demonstrate credibility.

Create awareness for your future climate champions



- 1 Set up a climate change task force: Have a representative from different departments or functions of your organisation. You could use existing cross-functional working groups. These groups draw on individuals with varying responsibilities, including operations, finance, marketing, business unit management, research and development, and government affairs, among others. Such a group can understand climate change from a variety of perspectives and help you develop and implement your climate strategy.
- 2 Set up a plan to educate your climate champions: Define the main objectives, concepts, tools and allocate the right amount of time to set your colleagues up to speed.
- 3 Adapt your climate education programme to your company culture and your challenges.
- 4 Take in consideration the background of your future climate change champions when preparing the training materials.



CREATING AWARENESS INTERNALLY

A key constraint to greater business activity on climate change remains the lack of awareness on the diverse business risks from climate change. This is particularly true for indirect business risks from climate change impacts, such as changes in the societal and political environment in which businesses operate. Such changes may include regulations to ensure developments don't take place in high risk areas or conflicts over decreasing water resources. Educating climate champions enables businesses to act proactively or react effectively when required.



EDUCATING YOUR FUTURE CLIMATE CHAMPIONS: KEY QUESTIONS CHAMPIONS SHOULD BE ABLE TO RESPOND TO

- 1 What does climate change mean for your company?
- 2 What are the key differences between mitigation and adaptation climate strategies?
- 3 How can your company balance short financial objectives with the long-term mind-set of climate change?
- 4 What are the examples of climate initiatives of your local and international competitors?
- 5 What results did other companies get from their climate strategy?
- 6 How can you align your initiatives with Lebanon's commitment to the Paris Agreement?



Creating internal awareness in your company is a critical step towards developing a successful climate change strategy. Plan for building capacity, including all key

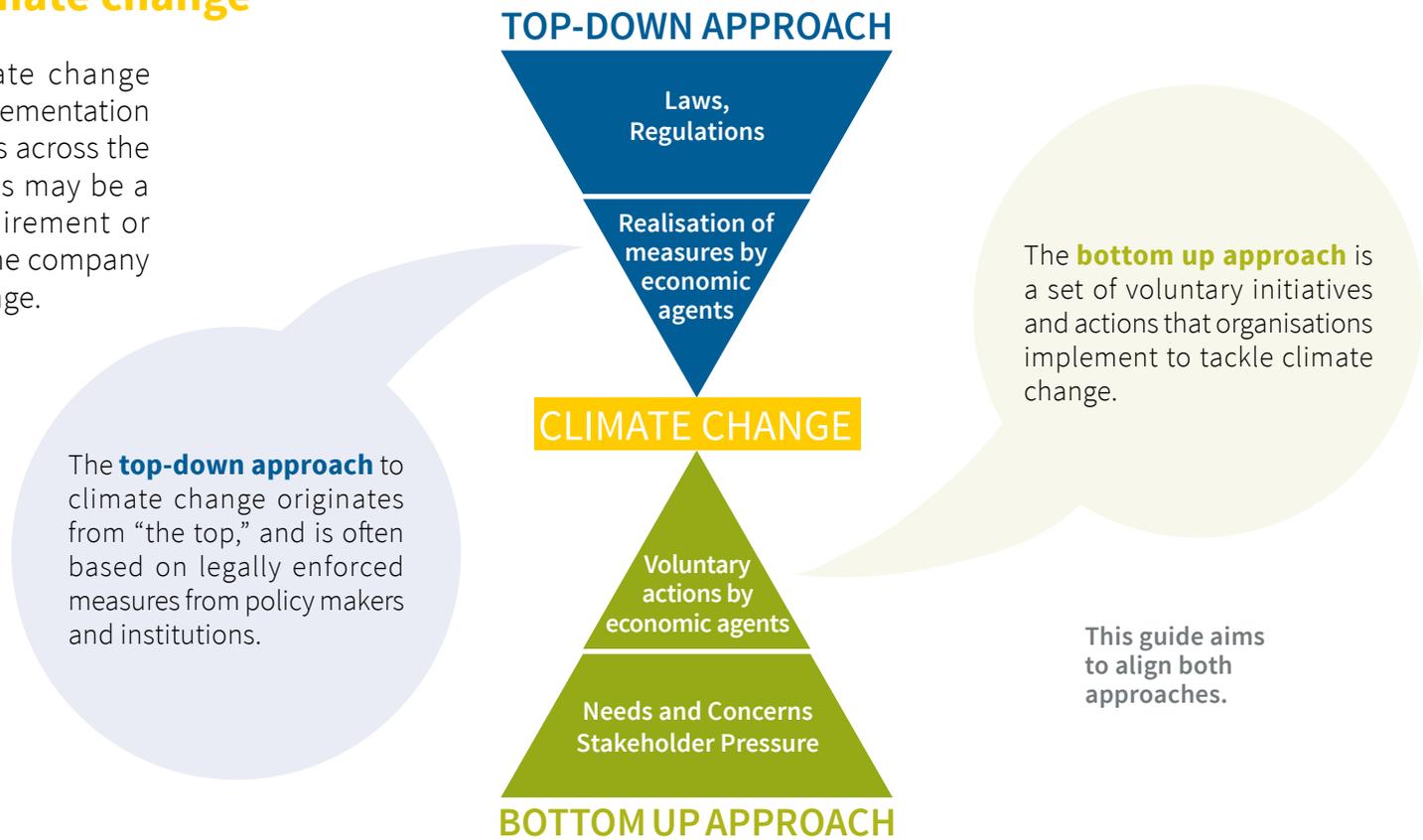
functions, and taking into consideration the needs of the climate change champions, the priorities of the company and the time restrictions.



Training/ Work Session	Objectives of the training / work session	Main concepts to explore in the training / work session	Functions/ departments to invite	Champion(s) to invite	Date / Duration
Session 1					
Session 2					
.....					

The role of policies in climate change

An integral part of the role of climate change champions entails coordinating the implementation of climate change initiatives and actions across the company. These initiatives or decisions may be a response to external mandatory requirement or internal voluntary measures by which the company aims to capture value from climate change.



Company's support to climate champions



Provide training and access to resources

Facilitate monthly meetings to review progress

Set clear expectations and goals

Provide mentoring or other support mechanisms for champions

Recognise and reward progress and hard work

Link the role of champions to their personal and professional goals



CHECKLIST FOR DEVELOPING A SUCCESSFUL CULTURE OF CLIMATE CHANGE IN YOUR COMPANY

- ✓ Define who your climate champions should be
- ✓ Create a capacity building plan for your climate champions. Use examples of local and international peers and competitors and make it relevant
- ✓ Make sure your climate change champions understand the main climate concepts to help you develop and implement your future climate change strategy
- ✓ Develop your climate change objectives, targets and strategy
- ✓ Deploy your action plan for strategy implementation
- ✓ Celebrate achievements

SUMMARY

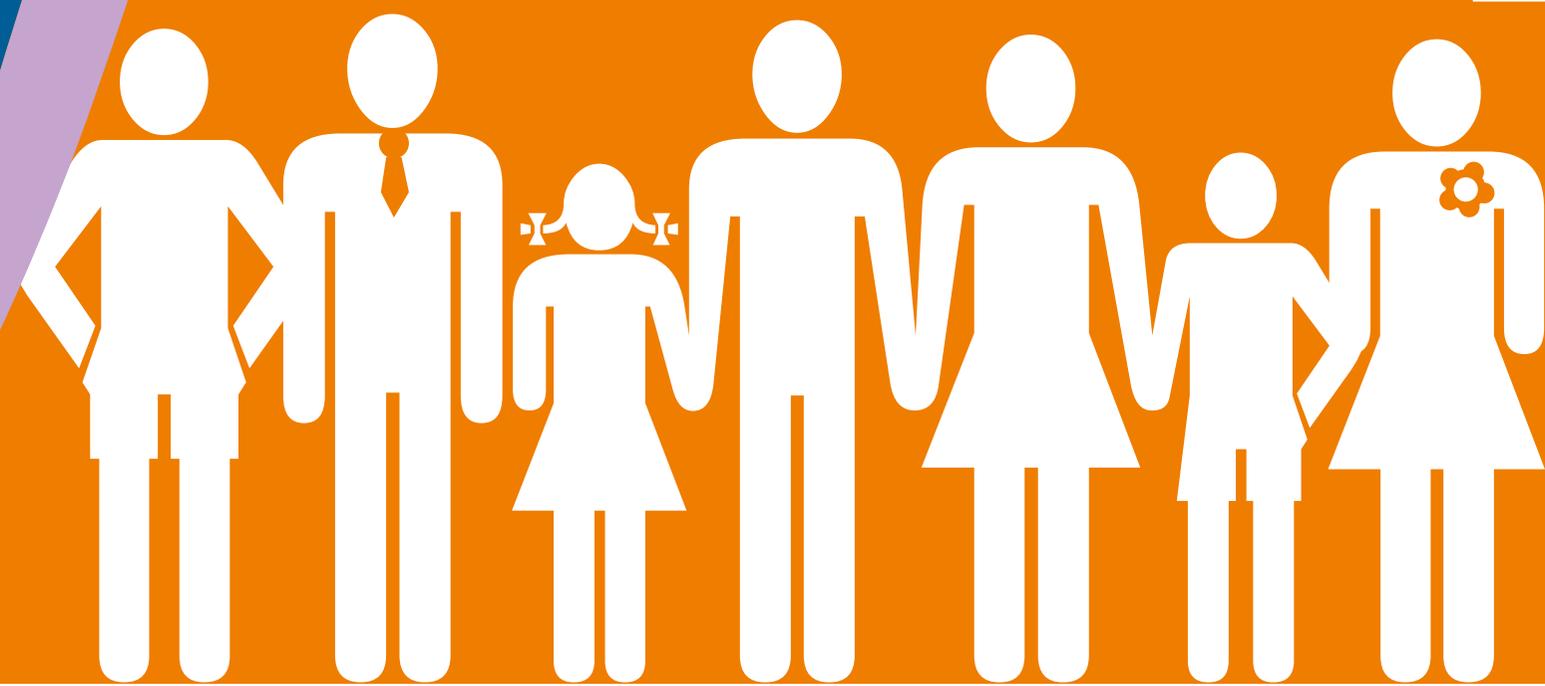
IN THIS STEP YOU LEARNED:

- What is the role of internal champions
- Why it's important to create awareness internally
- How to develop a plan to designate climate change champions
- How to support climate change champions

Step 1

NOTES

2
STEP



Identify your stakeholders

STEP 2 Identify your stakeholders



Today's business challenges and the need to address the climate change agenda make the process of engagement with stakeholders a strategic activity. The imperative of a global objective reinforces the

need to identify and actively engage with stakeholders in order to achieve specific corporate goals as well as to meet regional and national climate challenges.

IN THIS STEP YOU WILL LEARN TO:

- 1 Identify stakeholders
- 2 Prioritise stakeholders
- 3 List criteria to select the right partners
- 4 Structure successful stakeholder engagement plans

Stakeholders identification

In the previous step you identified your climate change champions. This cross-functional team of professionals with knowledge of the company will be the task force that will identify your company's stakeholders.

- Start by identifying big stakeholders' groups.
- Go deeper and identify subgroups for each stakeholder category likely to share similar perspectives.

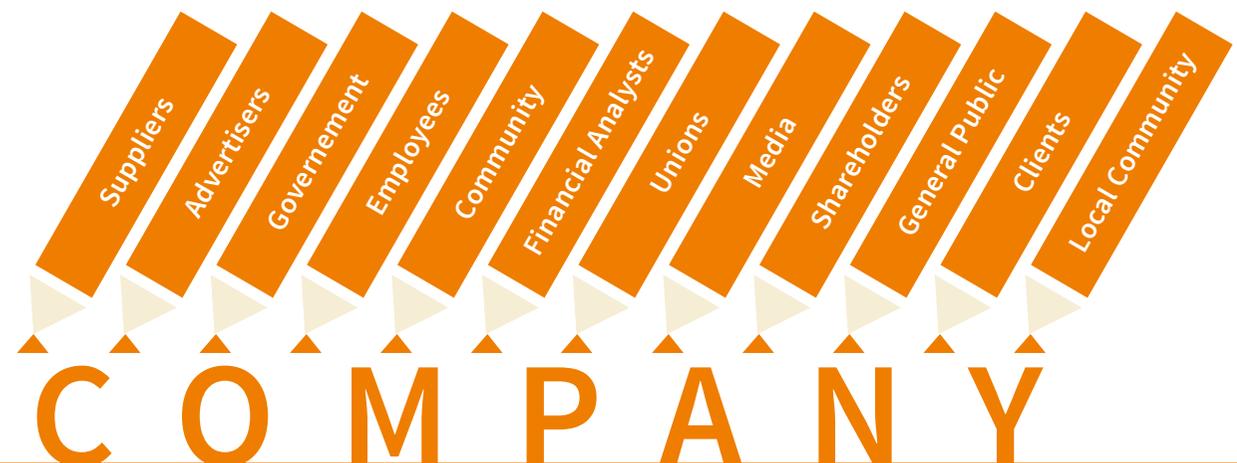


WHO ARE THE STAKEHOLDERS?

Stakeholders are individuals or groups who are **affected** directly or indirectly by the company activities or/and can **affect** company activities and decisions.

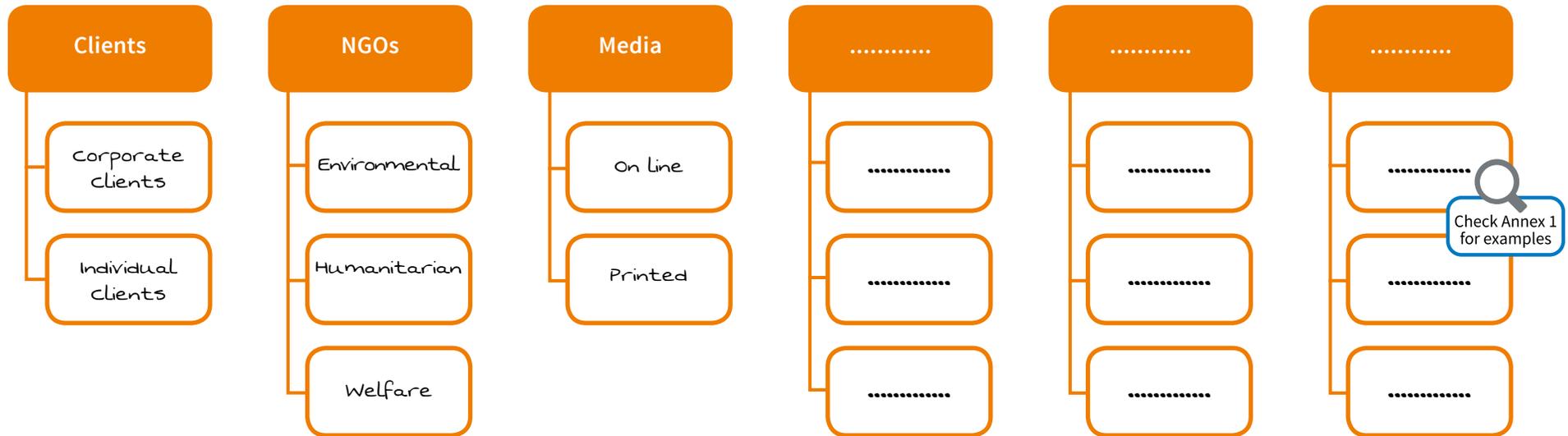


Examples of stakeholder groups





Start by identifying the main stakeholder categories (orange boxes), and then fill in the white boxes with subcategories of the stakeholder groups thus identified.



- 1 Don't start this journey alone. Utilise your multi-functional group of climate change champions. Having different perspectives will enrich the stakeholder identification process.
- 2 Start by considering your company's internal and external environment. List all possible categories of entities that affect or can be affected by your business decisions and all the entities that can influence your company's decisions. Use this analysis to determine who might be affected and in what way.
- 3 Stakeholder identification includes traditional and non-traditional stakeholders. Therefore consider, besides the typical stakeholders, like customers, suppliers, investors, shareholders, employees (...), others such as local community, institutions, environmental organisations, humanitarian institutions, civic organisations, and academia, amongst others.





- 1** Define a set of criteria to help you prioritise potential stakeholders.
- 2** Ask your task force to review the criteria.
- 3** Conduct the prioritisation based on your selected criteria.
- 4** Identify the priority stakeholders with whom you will engage.
- 5** Bring your stakeholders up to speed on your priorities.

Why should I prioritise my stakeholders?

Identifying those stakeholders who can influence you or be influenced by your company's activities, either positively or negatively, allows you to anticipate and manage any reaction to your potential business decisions. You can develop strategies to get the most effective support possible for your projects and reduce any obstacles to successful implementation. In addition, as a company your resources (people, time) are limited and you need to be able to allocate and dedicate the necessary resources to manage the stakeholders that can impact you the most.

Why do I need the task force of company champions for stakeholder identification?

The task force is a multifunctional group, a team of champions from all key departments or functions of the company, which therefore understands very well all aspects of business, business impacts and relations. This team can provide holistic input for stakeholder identification and reliable criteria for stakeholder prioritisation.

How can I prioritise my stakeholders?

You can use any criteria that fit your company or project best in order to prioritise your stakeholders. In the worksheet below we propose a tool to help you prioritise a stakeholder group based on the influence this group can have on your company, strategy or project.

Is it important to document the stakeholder identification and prioritisation process?

Your company should document its approach for identifying stakeholders; deciding which stakeholders to engage with, and how and when to engage with them. This is useful, as you will probably need to communicate the results of this process or to identify trends in stakeholder management later.

Are all stakeholders equally important?

Not all stakeholders are equally important. You may realise that, for example, suppliers may be more important than the university in your local community. However, remember that a stakeholder's importance may change due to a number of internal and external factors. So, it's best to conduct a stakeholder prioritisation exercise every year or after major business changes (e.g., merger, acquisition or expansion).



It's critical to identify a methodology to prioritise your stakeholders.
This tool will let you choose those with whom you should engage closely to achieve your goals.



Stakeholders	Risk (1-5)	Impact (1-5)	Probability (Risk*Impact) (1-25)	Priority

Risk is the risk associated with a specific stakeholder in terms of climate change, i.e., how high is the risk (or influence) of this specific stakeholder for our climate change strategy or initiative? * Give a “5” if the risk is very high, “1” in cases of very low risk.

Impact is the strength of the influence of a specific stakeholder. * Give a “5” if the impact is very high, “1” in cases of little or no impact.

Probability is calculated by multiplying risk with impact. The highest total score will be 25 (5*5) and the lowest 1(1*1).

Priority can be high, medium or low based on company probability. The higher the probability is, the higher the priority is.



FOR ADDITIONAL GUIDANCE ON STAKEHOLDER PRIORITISATION, REFER TO AA 1000 APS.

AA 1000 APS is a global framework for stakeholder engagement, which presents six criteria that can help companies prioritise their stakeholders

These six criteria are: responsibility, influence, proximity, dependency, representation and policy, and strategic intent. Consider these criteria when evaluating the priority of stakeholders with your task force

Probability levels 21-25= Very high priority	Probability levels 16-20= High priority	Probability levels 11-15= Medium priority	Probability levels 6-10= Low priority	Probability levels 0-5= Very low priority
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Stakeholder engagement plan



- 1** Facilitate engagement with the stakeholders with whom you decide to engage, select and allocate company representatives/ contact people. These representatives may be your climate change champions.
- 2** Develop a plan for your stakeholder engagement.
- 3** Communicate the engagement plan to all involved stakeholders.
- 4** The plan will evolve over time. Be sure to have a clear timeline.
- 5** Decide on the level of engagement (e.g., from the more passive forms, such as monitoring and informing, to the more active such as collaborating or empowering).
- 6** Decide on the method of engagement.



METHODS OF ENGAGEMENT

Methods of engagement can include:

- Surveys
- Focus groups
- Local representatives
- One-to-one meetings
- Online forums
- Road shows
- Stakeholder networks
- Stakeholder panels or committees
- Public meetings
- Forums



THINGS TO CONSIDER WHEN DEVELOPING A STAKEHOLDER ENGAGEMENT PLAN

- Time and resources required for stakeholder engagement
- Manage expectations of stakeholders and company
- Issues and requirements of transparency
- Current corporate culture
- The importance of engaging closely with a specific stakeholder or stakeholder group is clear for the company
- Requirements for effective stakeholder engagement
- Need for senior endorsement



Fill in the table below to build your stakeholder engagement plan.



	Questions	Your answers
1	Who are the stakeholders your company will engage with? This can be an engagement between you company and one or more stakeholders. For this exercise you can select the top three stakeholders you've identified.	
2	What kind of role each stakeholder will have? Please consider all parties, including your own company.	
3	What are the objectives associated with the stakeholder engagement? Examples include: retain the customer, increase my base, receive more input, inform, etc. Please consider all parties, including your own company.	
4	What are the benefits are for all of the stakeholders involved? Please consider all parties, including your company.	
5	What are the potential risks of this engagement? Please consider all parties, including your own company.	
6	What resources are required? Please consider all parties, including your own company	
7	What methods will we use to engage with stakeholders?	
8	What is the timeline for the involvement of stakeholders? Please consider all parties, including your own company.	
9	What are the top two expectations from this engagement that must be met to ensure success? Consider the expectations of your company and ask your stakeholders for theirs.	



STEP

3

**FUTURE
VISION**

**COMPANY
POLICY**

Develop a vision and policy

STEP 3 Develop a vision and policy



Developing a climate change vision and policy is a good practice that will provide clear guidelines for your company's internal and external stakeholders. It will define your company's commitments to ensure fair and consistent climate-friendly practices and legal compliance.

You may already have a formal policy or vision on the environment, or you may already follow an environmental management system which requires your environmental vision or policy. If such documents

exist, it shouldn't be hard to incorporate climate change in your company's vision, as there's already an understanding of the company's environmental impacts. You usually can add a few sentences to your vision so as to state your commitment to fighting climate change. In the case of a policy document, you can develop a new policy on climate change. If your environmental management system is certified by an external body, be sure to follow the formal procedures by which to incorporate climate change.

IN THIS STEP YOU WILL LEARN TO:

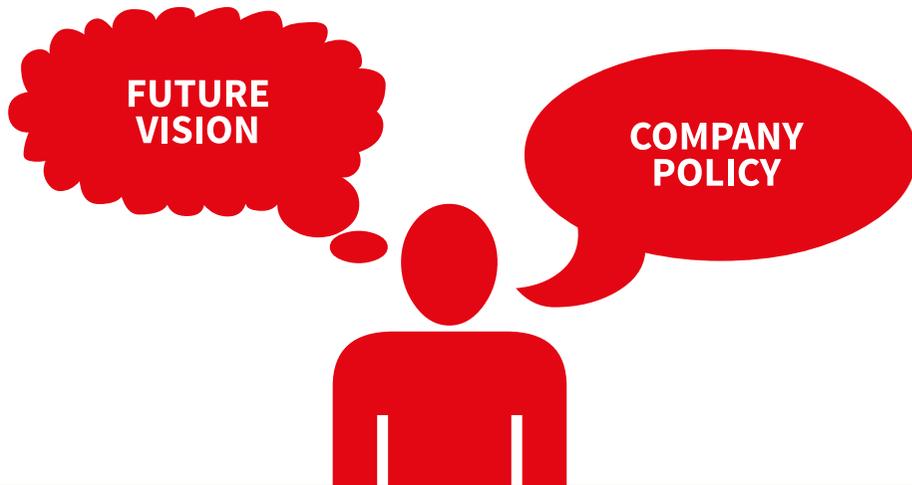
- 1 Structure your climate change policy
- 2 Articulate your climate change vision
- 3 Involve the people who can secure the development of a vision and policy

Take Notes

What could your company's vision be?



My company's vision is



WHAT IS A COMPANY VISION?

A climate change vision is a picture of what your company's future will be and where it will be headed. It provides a clear mental picture of what you envision your organisation to look like 5 to 10 years from now.

WHAT IS A COMPANY POLICY?

A company policy is a documented set of basic principles and associated guidelines, formulated and enforced by the governing body or an assigned committee of the company with the aim of directing the company's decisions and actions in pursuit of its objectives.

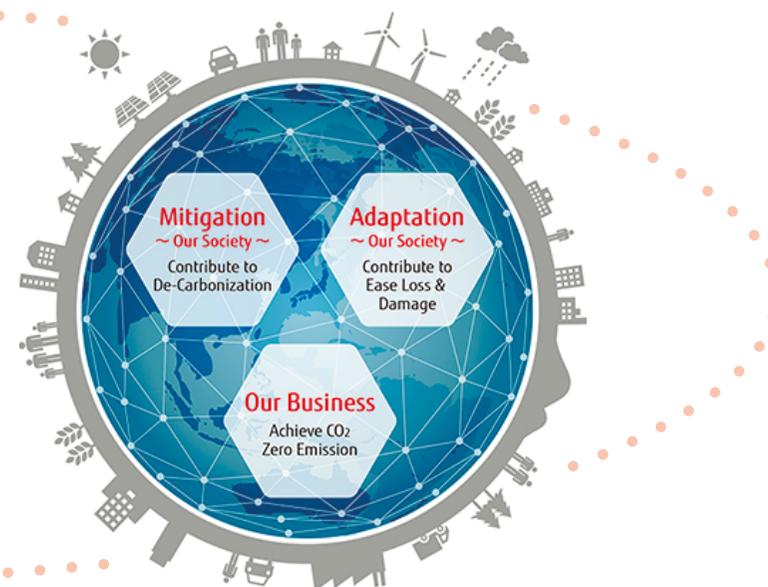
B Resource Guide: Creating Company Policies

Practical information on how to develop your climate change vision and policy

Output	Action	Who to involve	Tools & techniques	Estimated duration
CLIMATE CHANGE VISION	Create a mental image of how climate change success would look like in 3-5 years	<ul style="list-style-type: none"> • Board Members • Company Directors • Managers • Employees • External Stakeholders • Climate Change Champions 	Executive interviews with board members Qualitative survey with directors and managers Workshop with employees and managers Focus group with external stakeholders	Four weeks (gather data, review, workshop, and hold a mini-retreat with climate change champions and other stakeholders)
CLIMATE CHANGE POLICY	Write a draft of your company's commitments that will help your company to accomplish its climate change vision	<ul style="list-style-type: none"> • Board members • Company directors • Managers • Employees • External stakeholders • Climate change champions 	Executive interviews with board members Qualitative survey with directors and managers Workshop with managers Focus group with external stakeholders	Three weeks (gather data, review, workshop, and hold a mini-retreat with climate change champions and other stakeholders)

Fujitsu's vision is to use ICT to accelerate its effort to shift away from carbon, to use the knowledge gained from this efforts in tandem with its digital technology to deliver solutions to customers and society, and to leverage its business activities as a constructive response to climate change. This vision is comprised of three axes.

<http://www.fujitsu.com/global/about/resources/news/press-releases/2017/0512-02.html>



How to develop and implement a policy

✓ Use your climate change champions	Your task force has the right people to draft, develop or oversee the development, and test the policy.
✓ Engage your stakeholders	Consult with stakeholders, including employees, board, and other external stakeholders who could be affected by the policy. Topics to discuss include content inclusions, implementation process, and input during the development and implementation phases. Engagement methods to be deployed include: questionnaires, emails and meetings.
✓ Draft a policy	Draft your policy and request feedback. Feedback can be provided as part of a workshop. Receiving feedback from function leaders is important.
✓ Have policies reviewed for legal accuracy	You may want to have policies reviewed to be sure they aren't requiring or prohibiting something that would violate the law. If a board of directors or advisory board exists, conduct a board vote.
✓ Agree on the policy implementation date	Following the approval of the policy content, you need to formally incorporate it in your system and your manual. Set an implementation date, sign, and then communicate accordingly.
✓ Monitor and review	Follow your formal process for policy review. If you don't yet have a formal policy, it's good practice to review the policy on an annual basis and inform everyone regarding any updates.
✓ Consider a policy manual	A formal manual allows for better management of the process and ensures all applicable stakeholders are informed of potential changes.

THE ROLE OF A COMPANY'S CLIMATE CHANGE POLICY

- Drives strategic planning and helps set expectations and performance objectives
- Leads to more efficient internal operations
- Engages and aligns the values of stakeholders; and builds mutual understanding of expectations and challenges
- Ensures accountability and creates transparency
- Ensures risk assessment and mitigation against it
- Gives staff orientation and provides an understanding of the company's goals and culture

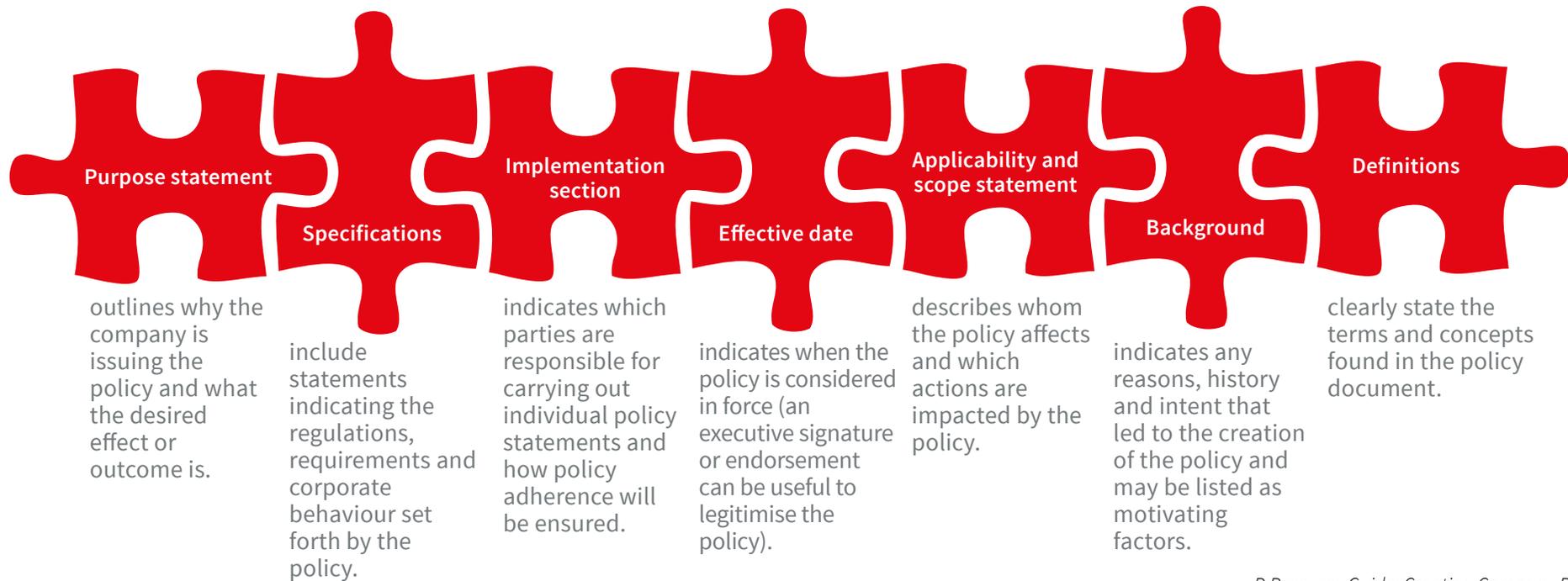


Draft your climate change policy



Policy item	Summary of content to include
✓ Purpose Statement	
✓ Specifications	
✓ Implementation section	
✓ Effective date	
✓ Statement of applicability and scope	
✓ Background	
✓ Definitions	

Elements of a company policy





SUCCESSFUL CLIMATE CHANGE VISION AND POLICY

- ✓ Engage with internal and external stakeholders. The vision and policy are strategic elements of a company, so it's important to develop them with stakeholders in mind
- ✓ Secure board leadership and involvement to ensure buy-in
- ✓ Be sure your vision and policy include all the key elements as a minimum
- ✓ Communicate your policy and vision, both internally and externally. Communication should be part of your plan to involve all employees in policy implementation (see step 8)
- ✓ Revise the policy at regular intervals, or after critical events/milestone (e.g., new national legislation, sustainable development goals)

SUMMARY

IN THIS STEP YOU LEARNED ABOUT:

- The benefits of developing a climate change vision and policy
- The tools and techniques to use in your climate change vision and policy
- The elements of a climate change vision and policy
- The key people to engage when developing strategic documents

Step 3

NOTES

STEP

4



Determine the impact of climate change on your company

STEP 4 Develop a vision and policy

This step is to understand how the main implications that climate change has for Lebanon, can lead to risks and opportunities for your organisation. By being aware of the challenges and opportunities at a national level, you'll be able to recognise ways to combat potential threats and capitalise on opportunities as they arise. In addition, you'll be able to identify the most immediate risks and the value-added areas to be tapped.



IN THIS STEP YOU WILL LEARN TO:

- 1 Identify the risks climate change pose to your organisation**
- 2 Understand how climate change can bring opportunities to your organisation**
- 3 Rank climate change risks and opportunities to the organisation**
- 4 Develop the climate change materiality matrix, the base of your future climate change strategy and action plan**



Benefits from your climate change vision

Areas of Risk	Description	Description Examples of vulnerable sectors and activities
Logistics	Extreme weather events can result in major disruptions to logistics, including transport arrangements, supply chains, utilities, and other essential infrastructure services. Just-in-time and single-source supply systems increase a company's vulnerability to such disruptions.	Retail industry – disruptions in the supply chain and distribution network. Logistics companies – failure to meet contracts for delivery; loss of cargo.
Physical assets and business premises	Risk from extreme weather events and changes in climatic conditions will affect the structure and interior and exterior of buildings. Physical assets will risk damage from extreme weather events or sea-level rise.	All sectors and real estate and property. Design criteria for buildings based on historical climate data will likely be inadequate.
Efficiency of operations	Some industrial processes and business activities are temperature or climate sensitive, and some require constant cooling. The productivity of these processes and activities can be affected and operational costs can rise due to the need for technical improvements or damage control.	Food industry – increased need for cooling for food preparation and storage. Information and communication technology – increased need for cooling in data centres. Manufacturing – increased need for cooling in process environment.
Competition over resources	Climate change will act as another stressor in regions already experiencing water stress. This will directly affect the operations of businesses which are dependent on water supplies. Competition over scarce resources can lead to conflicts; it can undermine a company's social license to operate or the acceptance and approval of the communities in which they operate. This is particularly so if water is diverted from local communities and farmers towards businesses.	Electric utilities – greater uncertainty over water supply for cooling power plants Food and beverage – access to key resources, water, and other natural resources
Reputation	Competition over scarce resources and business impacts on essential ecosystems can lead to reputational risks. This is a risk factor in countries vulnerable to climate change, with large parts of the population depending on climate-sensitive resources.	All sectors – conflicts over scarce resources; conflicts with communities
Financial	Operational costs and business-continuity costs can increase due to a combination of climate-risk factors. Institutional investors and banks are increasingly interested in the investment implications of climate change. Governance of climate change risks is coming under closer scrutiny.	Electric utilities, properties, mining and extractive industries, agriculture and forestry
Insurance	With greater risks from climate change impacts such as sea-level rise and extreme weather events, premiums may increase. Insurance may no longer be available for certain assets and in very vulnerable regions. Insurance companies will see an increase in claims and will need to manage the increasing unpredictability of business disruptions.	All sectors that won't be able to insure for weather-related damages as they become uninsurable; small insurance companies, e.g., cooperatives with weather risks in their portfolios threatened by bankruptcy in the event of an insurance case
Workforce	Extreme weather events and changes in the distribution of vector-borne diseases can lead to more lost days. Health and safety risks may increase where business operations are prone to extreme weather events.	All sectors, particularly those with outdoor site work, such as property construction, restaurants and hotels
Biodiversity	Changing weather patterns and rising ocean temperatures are additional stressors threatening species vital to business operations.	Pharmaceutical, cosmetics, fisheries, tourism (diving)

Source: Adapted from CLIMATE CHANGE ADAPTATION: Engaging Business in Asia, CSR Asia, 2011



Identify your main areas of **risk** related to climate change



Areas	Your company's risks from climate change
✓ Regulatory	
✓ Physical	
✓ Reputational	
✓ Legal	
✓ Marketplace	

Business opportunities from climate change

- Worldwide companies started working on their resilience as their existence and core business began to be affected. Being ready for climate change impacts, preparing adequate policies and strategies to adapt and reduce the GHG is becoming vital. The costs of raw materials are increasing, as is the demand on energy and natural resources. Some companies started developing and optimising the use of raw materials to avoid price increases and reduce the consumption of natural resources.
- Companies started developing new adaptation strategies to improve their image, rebranding, building partnerships with local and international NGOs, benefitting from local trends (increase of environmentally cautious clients, governmental policies pushing towards reduction of GHG emissions).
- In addition, companies see it as a market-penetration tool, as recently many developed countries have imposed environmental regulations on their imports, requiring their international representatives to include environmental criteria in their bids.



Identify your main areas of **opportunity** related to climate change



Areas	Opportunities from climate change for your company
✓ Regulatory	
✓ Physical	
✓ Reputational	
✓ Legal	
✓ Marketplace	

Ranking climate change risks and opportunities

Use the above lists with the potential topics which can pose risks or opportunities. Fill in the table below in order to rank your risks and opportunities. The table will help you rank each topic as an external pressure and an internal opportunity. You will then be able to translate your ranked

list into a simple matrix and thus prioritise your actions based on external pressure and internal benefits. This table is a required step in order to develop your climate change materiality matrix and assess the priority of topics to be addressed.

Climate Change External Pressures					Climate Change Internal (Company) Benefit Drivers			
Topics (Risks or Opportunities)	Is this topic important to stakeholders?	Is this topic connected to laws, regulations and international agreements?	Do experts see this topic as critical in your sector?	External Pressure Total Score	How critical is the contribution of this topic in the financial situation of the company?	Can this topic help the company increase its share of a certain market?	Will this topic affect our company's decision-making in the years to come?	Company Benefit Total Score

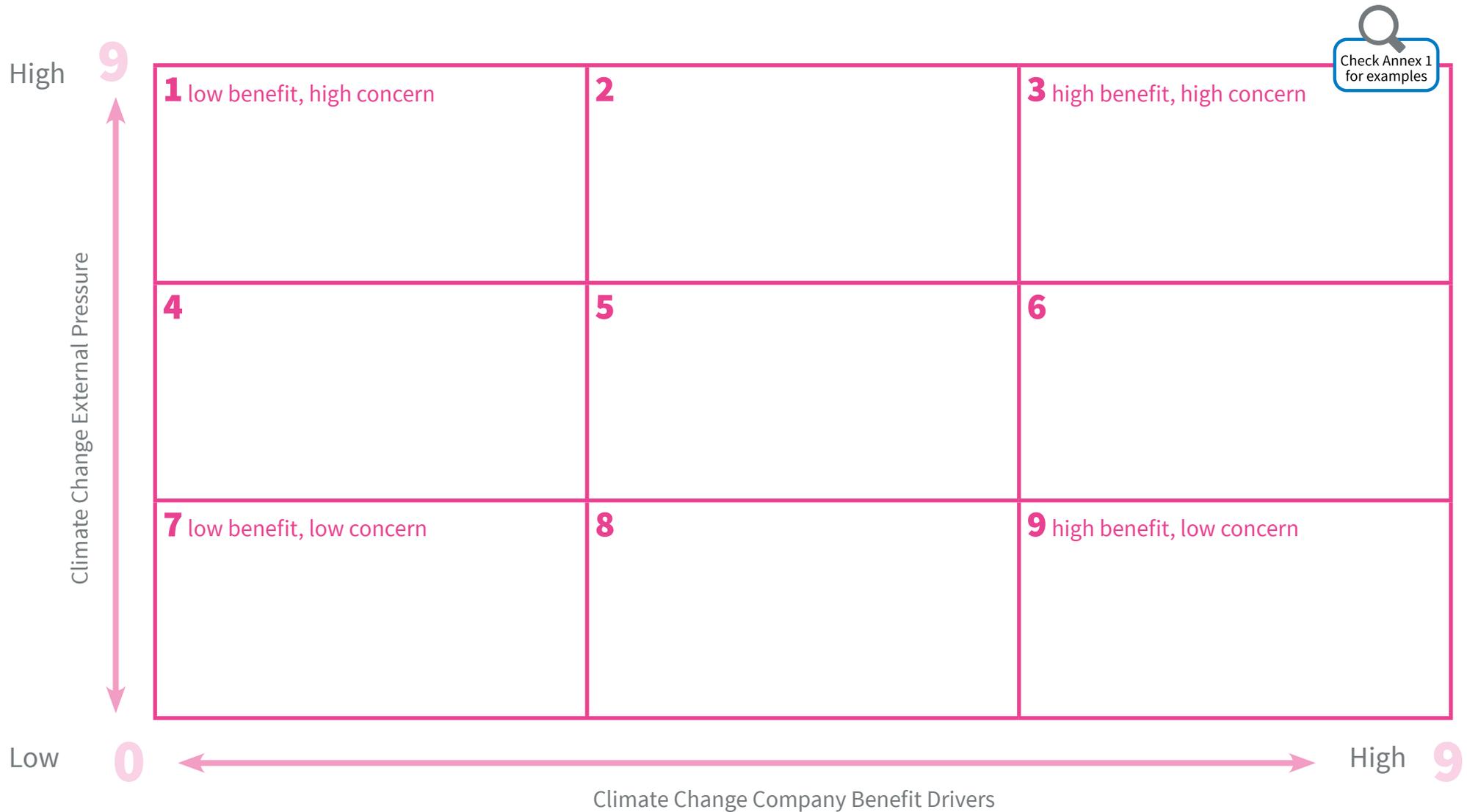


- Use a scale from 0 to 3, where “0” is very low or none and “3” is very high
- The External Pressure Total Score is the sum of the Climate Change External Pressures in each row. The highest total score is 9, and the lowest is 0
- The Company Benefit Total Score is the sum of the Climate Change Internal (Company) Benefit Drivers. The highest total score is 9, and the lowest is 0
- The higher the External Pressure Total Score, the more important the topic is. Therefore, in simple terms, a topic that ranks 9 in the External Pressure Total Score is more pressing than one that scores 5
- If a topic scores 2 in the External Pressure Total Score and 8 in the Company Benefit Total Score, it means the internal drivers to tackle this topic are far more pressing compared to the external drivers
- There is no such thing as bad or good score. You must be sure your score is accurate and takes into consideration all possible factors. This will make your score credible and help you structure your climate action plan



Mapping climate change risks and opportunities

Map your climate change topics in the climate change materiality matrix below, which is a very valuable tool for focusing your resources and prioritising your actions. The risks and opportunities in box 3 will be the more important and urgent topics to address. Then you can move to boxes 1 and 9.





CHECKLIST FOR DEFINING THE IMPACT OF CLIMATE CHANGE IN YOUR COMPANY

- ✓ Identify the main risks of climate change in your company. Be aware of risks for all functional areas
- ✓ Identify the opportunities climate change can bring to your company
- ✓ Rank your risks and opportunities
- ✓ Put your risks and opportunities in the climate change materiality matrix to have a clear picture of what issues are more important to address

SUMMARY

IN THIS STEP YOU LEARNED ABOUT:

- Risks that climate change can bring to your company
- Opportunities that climate change can hold for your company
- Priority actions to take

NOTES

Step 4



STEP 5



Measure your carbon footprint

STEP 5 Measure your carbon footprint



Definition of carbon footprint

A **carbon footprint** is "the total amount of greenhouse gases that are emitted into the atmosphere each year by a person, family, building, organisation or company. A person's carbon footprint includes greenhouse gas emissions from fuel that an individual burns directly, such as by heating a home or driving a car. It also includes greenhouse gases that come from producing the goods or services the individual uses, including emissions from power plants that make electricity, factories that make products and landfills where trash is sent"⁹. Therefore, it's important to understand your company's impact and how much GHG you're emitting; to set reduction strategies, compare them to local benchmarks and communicate your steps towards reduction.

IN THIS STEP YOU WILL LEARN TO:

- 1 Identify your sources of GHG emissions
- 2 Conduct a GHG audit (calculate your carbon footprint)
- 3 Communicate your results with local authorities



THE MOST COMMON GREENHOUSE GASES

Carbon dioxide (CO₂) is introduced into the atmosphere mainly through burning fossil fuels (coal, natural gas and oil), solid waste, trees and wood products, as a result of certain chemical reactions. Carbon dioxide is removed from the atmosphere (or "sequestered") when it's absorbed by plants and forests as part of the biological carbon cycle.

Methane (CH₄) is emitted during the production and transport of coal, natural gas and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in solid-waste landfills.

Nitrous oxide (N₂O) is emitted during agricultural/ industrial activities and during the combustion of fossil fuels and solid waste.

⁹ <https://www3.epa.gov/climatechange/glossary.html#C>

Calculate your carbon footprint in Lebanon

In Lebanon, Ministerial Decision No. 99/1 was issued by the Ministry of Environment to encourage companies such as yours to calculate and communicate their carbon footprints. In exchange, companies gain market exposure and visibility in regards to their climate change awareness through a reporting certificate awarded to them by the Minister of Environment.



Steps to follow to get your GHG CERTIFICATE OF ACKNOWLEDGMENT:

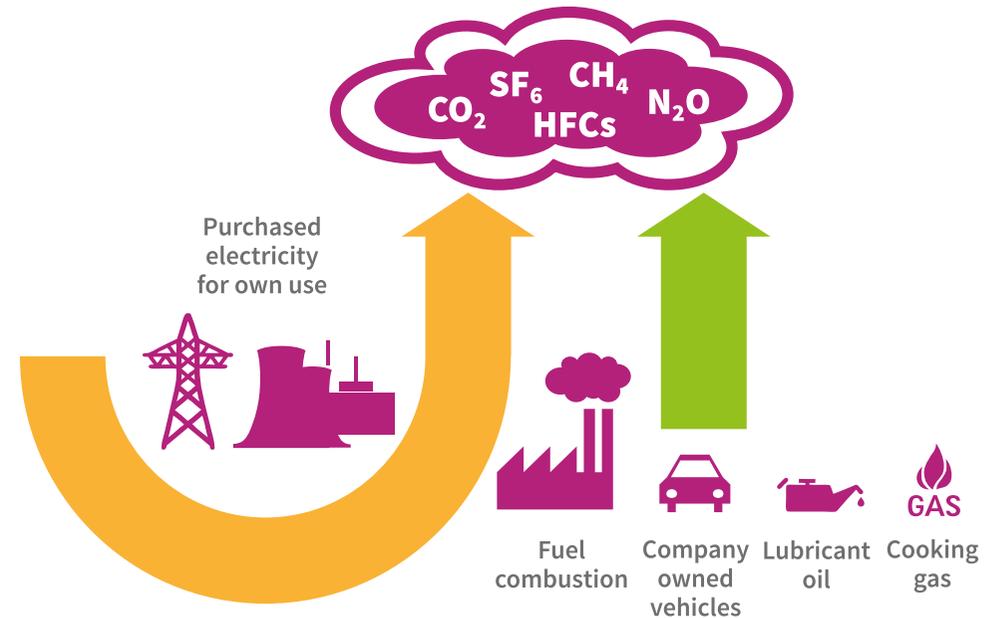
- 1 Download the form from <http://climatechange.moe.gov.lb/youandcc>
- 2 Collect the required data and fill the form. Detailed instructions are included
- 3 Print 2 hard copies of the file and save soft copies on 3 different CD
- 4 Review and sign by your certified auditor and your CEO or GM
- 5 Prepare a Cover Letter addressed to the Minister of Environment to obtain an official registration number at the Ministry
- 6 Register your file at the Ministry of Environment during official working hours
- 7 The Ministry will contact you to collect your certificate of acknowledgment!



Sources of carbon footprint

The 99/1 decision requires the communication of the carbon footprint from following sources:

- Purchased electricity from local utilities – due the burning fuel in Electricite du Liban (or any private electricity company such as Zahle, Qadisha, etc.)
- Purchase of electricity from shared generators to offset electrical shortages (Ishtirak); these generators will consume fuel
- Electricity produced by your own generators
- Cooking gas you consume to produce your products (catering companies) or in your cafeteria
- Lubricant oils you use in your generators, fleet vehicles, machinery, etc.
- Fleet vehicles (cars, pickups, forklifts, etc.) you own and use to transport your goods and visit clients



Indirect Emissions from Purchased Electricity

EDL bill: Yearly purchased electricity from the local authorities, in kWh	Check you EDL bills!
Shared generator: Yearly purchased electricity from local generators to offset electricity shortages	Check your agreement with the regional shared generator how many Amperes you purchase and number of running hours per year! Ask if the generator is Single or Triple phase!

Direct Emissions from Stationary Fuel Combustion

Gas diesel oil for electricity, for space heating and for water heating: Yearly fuel consumption, in liters of diesel oil for electricity production, space heating and water heating, respectively	Check with your accountant or contact your diesel provider!
Gas for cooking: Yearly gas cooking gas consumption in litres	Check with your accountant or gas distributor!
Lubricants: Yearly litre of lubricant oil consumed	Check with the maintenance department or your accountant!

Business Related Transport

Gasoline and Gas/Diesel Oil: Yearly fuel consumption for fleet vehicles (gasoline, diesel)	Check with your accountant or your fuel stations statements!
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CHECKLIST FOR YOUR COMPANY'S GHG AUDIT

- ✓ Understand the concept of carbon footprint
- ✓ Understand the potential sources of carbon footprint
- ✓ Use the results of the GHG audit to produce meaningful reports and inform strategy

SUMMARY

IN THIS STEP YOU LEARNED ABOUT:

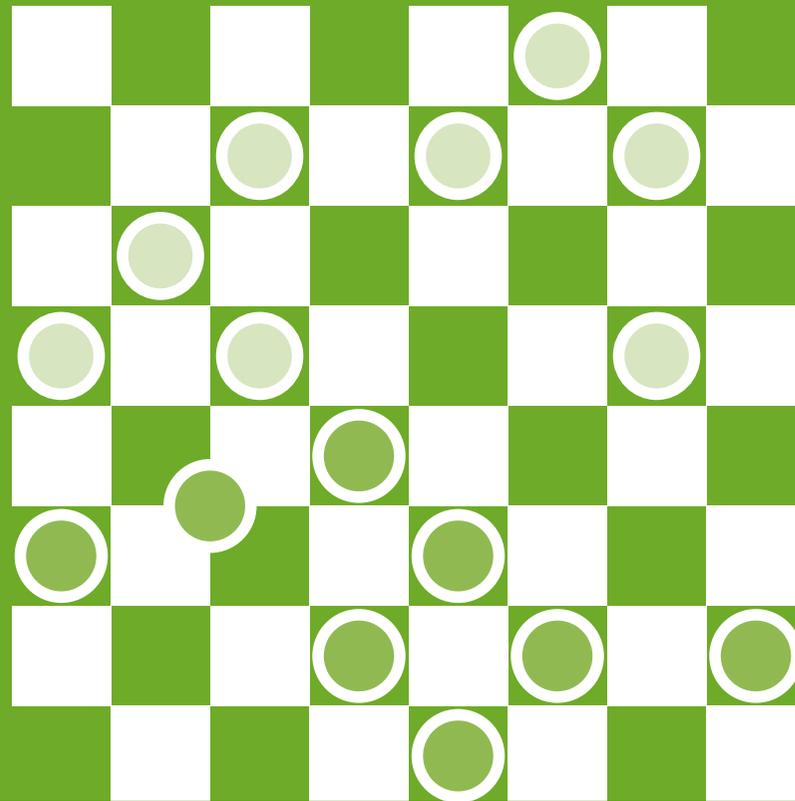
- The importance of knowing the carbon footprint of your company
- How to use the Ministry of Environment carbon footprint tool to calculate your company's GHG emissions

NOTES

Step 5

STEP

6



Define your strategy and climate action plan

STEP 6 Define your strategy and climate action plan



You've now reached the stage where you can develop a climate change strategy and action plan to help tackle climate change. A climate change strategy can include mitigation as well as adaptation actions. Although your approach should be holistic and address multiple aspects of climate change, you can focus on one action set (mitigation or adaptation) on climate change and then extend it to other actions.

IN THIS STEP YOU WILL LEARN TO:

- 1 Identify and examine the feasibility of adaptation and mitigation measures
- 2 Evaluate the effectiveness of the adaptation and mitigation measures and risk control strategies including the costs, benefits and associated implementation risks
- 3 How to select adaptation, mitigation and risk control strategies and opportunity exploitation measures

The hierarchy of carbon footprint reduction



STRATEGY AND ACTION PLANS

A **business strategy** is the means by which a company sets out to accomplish its goals.

A strategy looks at the big picture. A strategy also includes action plans. An action plan describes in detail how a strategy will be implemented in order to achieve its goals.

An action plan is about specific steps you will need to take and may include checklists, schedule reviews, major milestones, performance metrics, and responsibilities.

Develop the climate change goals of your strategy



Use the table below to identify all the strategic goals you can use to achieve your climate change vision

Write your climate change vision here:



COMMON BARRIERS WHEN DEVELOPING YOUR CLIMATE CHANGE STRATEGY

- 1 Lack of business understanding
- 2 Uncertainty about climate change impacts
- 3 Lack of robust climate data in a useable format
- 4 Discounting the future
- 5 Uncertainty about adaptive measures and initiatives

Strategic Goal	Write your strategic goal:			
Recourses needed				
People involved				
Policies linked				
Initiatives or actions needed				
Timeframe				

Check Annex 1 for examples

Build your climate change action plan

- Working with the highest-level risks and opportunities you identified in step 3, you can identify feasible adaptation or mitigation options. Your action will also contain a portfolio of short- and long-term measures, for example shorter-term actions will deal with immediate concerns while longer-term actions will provide more comprehensive solutions
- Together, these measures will offer a cost-effective means to bring unacceptable risks down to acceptable levels



RISK-CONTROL MEASURES FOR CLIMATE CHANGE

Examples include: inspection, monitoring, research, planning, relocation, improved or new infrastructure, changed standards or guidelines, mapping, updating emergency plans



- 1 Identify all potential mitigation actions
- 2 Identify all potential adaptation actions
- 3 Consider risk-control measures for climate change

Take
Notes



YOUR CLIMATE CHANGE ACTIONS

Mitigation actions may include

- Reduced CO₂e emissions with: car pooling, a shuttle bus for employees and video conferences instead of meetings
- Reduced electricity consumption: movement sensors, LED lights

Adaptation examples may include

- Saving water through installing automatic faucets
- Initiating a reforestation campaign

Map your action plan



Map your actions in the table below. Don't forget to relate them with the climate change goal of your company. For each action, describe the desirable outcome, how the action could be measured, the timeframe and the person responsible.



Company Strategic Objective:					
Climate change topic	Target	Action	Budget	Action timeline	Responsible party

Actions can include:

- New measures to be implemented (install solar PV)
- Scaling up measures that already exist (increase rate of recycling)
- Continuing measures that have started previously (maintenance of the PC system installed last year)
- Partnering with a municipality or NGO
- Raising awareness internally to employees
- Raising awareness externally to clients

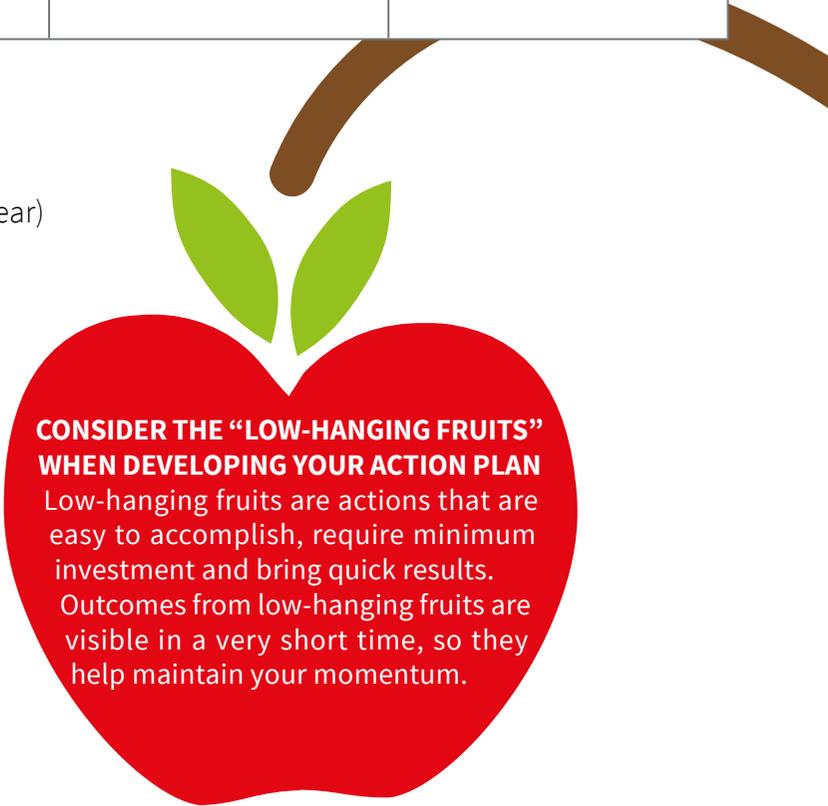


BRING YOUR SERVICE PROVIDERS ON BOARD

When developing your action plan, consider your service providers. Some of your actions and decisions will require their commitment as well. Make them aware of your strategy and what's required of them.

CONSIDER THE “LOW-HANGING FRUITS” WHEN DEVELOPING YOUR ACTION PLAN

Low-hanging fruits are actions that are easy to accomplish, require minimum investment and bring quick results. Outcomes from low-hanging fruits are visible in a very short time, so they help maintain your momentum.



Evaluate your action plan



Evaluate actions in terms of duration, cost (operating and capital), effectiveness and stakeholder acceptance.

Action	Cost	Effectiveness	Acceptability	Final evaluation
1				
2				
3				
4				
5				
6				

Check Annex 1 for examples



- Estimate the effectiveness of the proposed actions using historical data and the judgment of the project team
- Identify and assess any residual risks caused by the control option
- Consider your key stakeholders

Final evaluation Your final evaluation dictates your decision to implement or not the specific actions. After careful analysis you may decide that other actions are more effective and should be implemented. It's important to have a clear understanding of the company's financial resources, legislation and business strategy in order to make an informed decision regarding any action.

Time Frame	Cost	Effectiveness	Acceptability
Short – can be implemented within 10 years	\$ – can be completed within existing or planned budget allocation	Low – will have minor effect on climate change	Low – significant public/corporate/stakeholder resistance
Medium – can be implemented within 10-20 years	\$\$ – will require additional funding	Moderate – will have moderate effect on climate change	Moderate – moderate public/corporate/stakeholder resistance
Long – can be implemented within 20 – 50 years	\$\$\$ – will require major additional funding/major capital program	High – will virtually overcome climate change	High – little or no public/corporate/stakeholder resistance

Establish partnerships to assist you with your climate change action plan

In this chapter you have identified a number of actions that you could implement. Some of these actions however require resources that you may not have and therefore in order to be successful you will need the support of other stakeholders or partners.



DETERMINE IF YOU NEED A PARTNER TO RUN YOUR ACTION

Key questions to ask

- 1 Do I need to set up a partnership for my climate change project, or can I manage it on my own?
- 2 What are my desired outcomes from the partnerships I'll build?
- 3 What is my timeframe?
- 4 How does this partnership relate to my climate change (or environmental) vision?
- 5 What are my business objectives for this partnership?
- 6 What are the opportunities I can explore with this partner that I couldn't explore on my own?



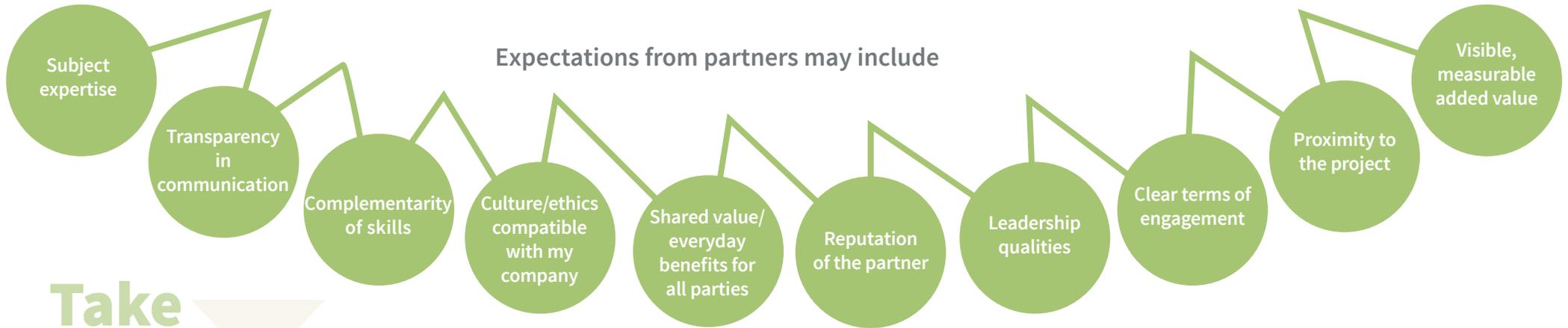
STEPS FOR A SUCCESSFUL PARTNERSHIP:

- Identify the outcomes, scope and context of the partnership you want to build so as to achieve your climate change goal
- Select the most appropriate stakeholders to partner for your project
- Develop an engagement plan for the selected stakeholders to meet your goals

PARTNERSHIPS IN THE FIGHT AGAINST CLIMATE CHANGE

- 1 Climate change is now a shared agenda between international organisations, national and local politics, businesses, the third sector and civil society. Each actor can have a significant contribution in addressing this common issue. Take advantage of the different resources and skills each stakeholder can bring to your project and develop meaningful partnerships as solutions to minimise your footprint or achieve goals that are out of your company's geographical and resources scope
- 2 To effectively address your climate problem, you'll need various resources. They can be financial, human, product, infrastructure, and natural, technological or intellectual. First, it's a good approach to map the resources needed to implement your action plan or strategy. It will help identify the partner or partners you'll need

Expectations from partners may include



Take Notes

Desired partnership outcomes related to my climate goals: _____ _____ _____	Timeframe: _____ _____ _____
Partnership relation to my climate change strategy or action plan: _____ _____ _____	Business objectives for this partnership: _____ _____ _____



WHY BUILDING STRONG PARTNERSHIPS IS SO IMPORTANT?

The rise of multi stakeholder’s partnerships has been a response to the implementation challenges of meeting sustainable development goal 17: “Partnerships for the Goals”. They require the participation of all relevant stakeholders: policy institutions, private sector, NGOs and civil society.



- 1 A clear understanding of the purpose of your initiative will help you identify potential partners from the first step in the stakeholder process. Ask the question, "How will this stakeholder help achieve my climate change vision and goal?"
- 2 Allow prospective stakeholders to voice their concerns through open access mechanisms such as hotlines, local representatives, focus groups or surveys





CHECK LIST FOR DEVELOPING A CLIMATE STRATEGY AND ACTION PLAN

- ✓ Define the strategy (or strategies) you should use in order to achieve your climate change vision as defined in step 4
- ✓ Use the climate risks and opportunities from climate change in your organisation (take the information from the climate change materiality matrix you created in step 3)
- ✓ Make a list of potential actions that could mitigate your risks and maximize your opportunities
- ✓ Get your carbon footprint and see what actions can help reduce emissions
- ✓ Identify potential partners and develop partnerships to help implement your actions and plans
- ✓ With your team, evaluate each action in terms of timeframe, effectiveness, cost (operating and capital) and stakeholder acceptance

SUMMARY

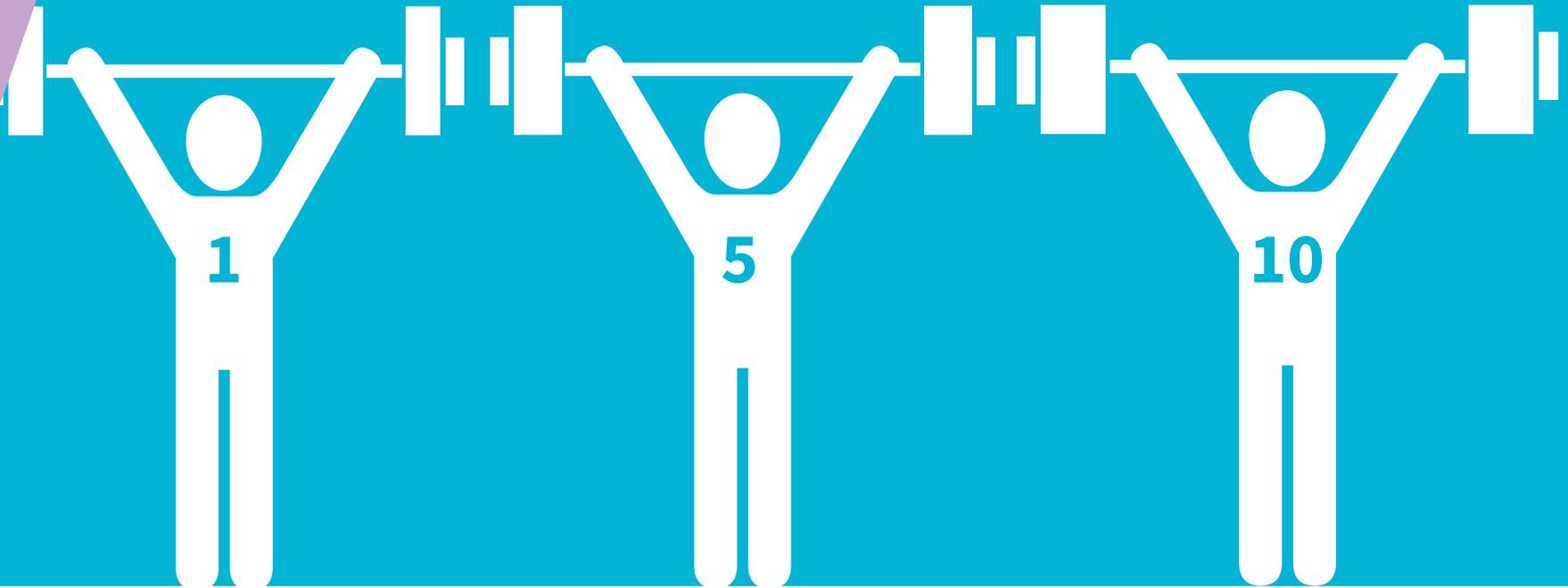
IN THIS STEP YOU LEARNED ABOUT:

- A methodology for setting your climate change strategy, and selecting the right actions to be implemented within a climate change action plan
- A set of parameters with which to evaluate the best initiatives
- How to develop meaningful partnerships
- The value of establishing partnerships for achieving climate change action plans

NOTES

Step 6

STEP 7



Evaluate and improve

STEP 7 Evaluate and improve

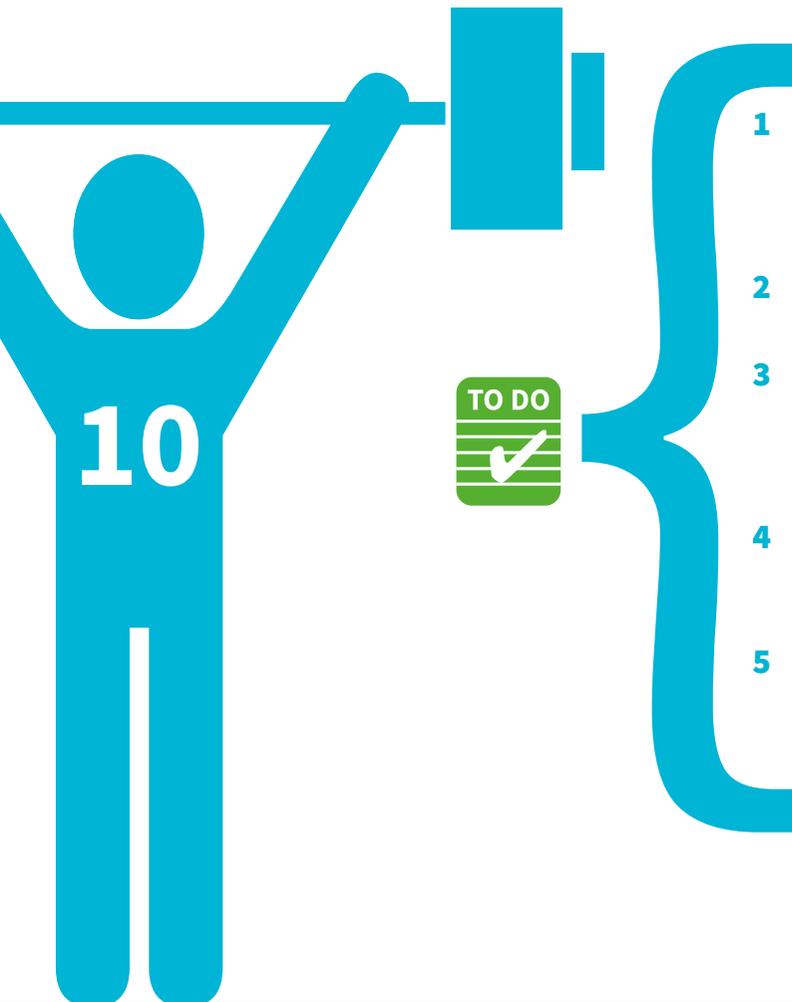


The assessment of business performance is a systematic process that allows you to obtain accurate information about the performance of your company. It also gives you insights concerning the factors that affect performance.

In order to achieve climate change goals, companies constantly try to adapt, perform and influence their stakeholders. To understand how to improve their performance and adaptability to new environments, companies evaluate their performance against goals. Successful companies set regular milestones during their initiatives and strategies in order to allow for internal assessment with respect to goals.

IN THIS STEP YOU WILL LEARN:

- 1 How to develop a summary of your overall progress**
- 2 How to improve your actions in order to achieve your goal**



1 CARRY OUT REGULAR PERFORMANCE CHECKS

Once your goal is set, it's necessary to track performance against it. In order to track performance against your goal, it's important to link your goal to key business objectives. It's also important to check regularly your progress against your goal.

2 ANALYSE YOUR PERFORMANCE AGAINST THE GOAL

Be sure to identify what works and what doesn't.

3 DISCUSS THE PERFORMANCE WITH YOUR COLLEAGUES AND DEFINE ACTIONS TO IMPROVE IT

Be sure each person involved is informed about the progress towards goals. If you spot any delays, talk to your team members and identify ways to improve.

4 REDEFINE TARGETS IF NEEDED

If you think a particular goal can't be attained, discuss with your climate change champions or your line manager and adjust the goal. This will improve your overall performance.

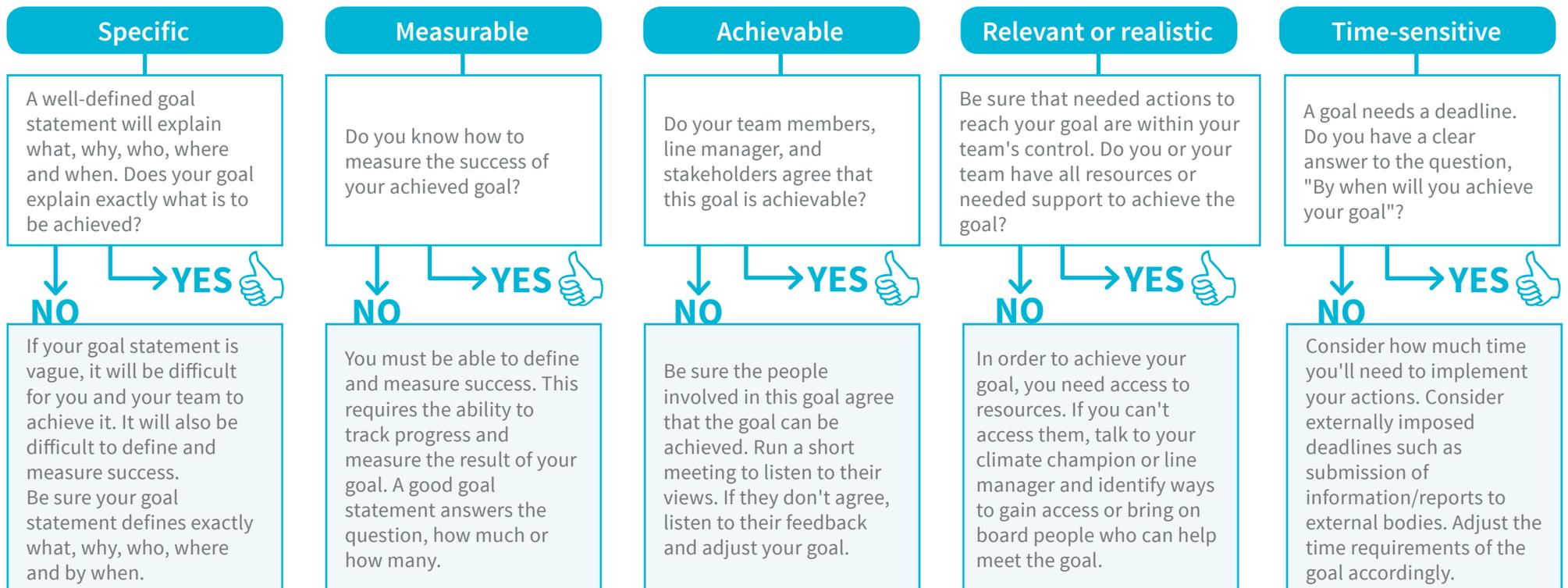
5 INTERNALLY REPORT INFORMATION ABOUT YOUR ORGANIZATION'S PERFORMANCE IN RELATION TO THE GOAL

A goal might be to hold a weekly project meeting with the key members of your team or to run a test programme over the project's duration.

Key elements of a successful evaluation

- The employees are clear about the purpose and benefits of the assessment
- The employees understand that the purpose of the assessment isn't to hold people accountable but to assess and enhance results
- The climate change champions have an active role in the process; they may conduct the assessment, or higher leadership may be responsible for assessment
- The employees are familiar with the process of providing feedback and its value in managing change; there is no culture of blame
- The assessment is conducted in a way that's fair, relevant, credible and transparent
- The findings are discussed and promptly communicated to all involved, including senior staff and board members if necessary
- The company has a process by which to implement the assessment's recommendations
- The recommendations provided are realistic, taking into consideration all potential restrictions

Test your SMART goals



Designing smart indicators and sources of verification

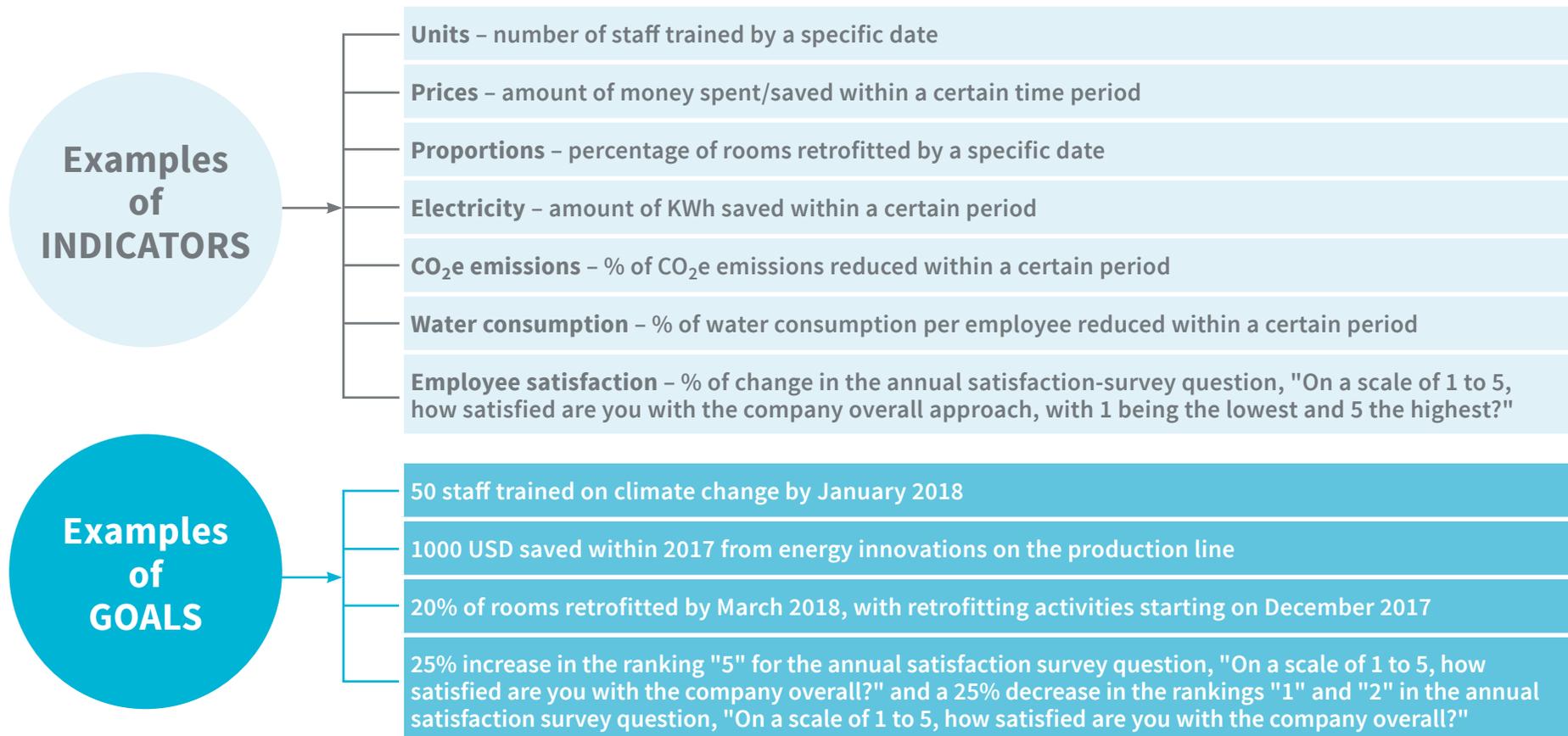
SMART goals are based on SMART indicators established to determine whether you have achieved your climate change objective.

- Using indicators will help specify your progress towards achieving your goals. The indicators:
- Should be defined before the project starts, and allow to monitor or evaluate whether a project does what it said it would do
- Usually describe observable changes from project intervention
- Provide evidence that something has occurred
- Should be quantifiable



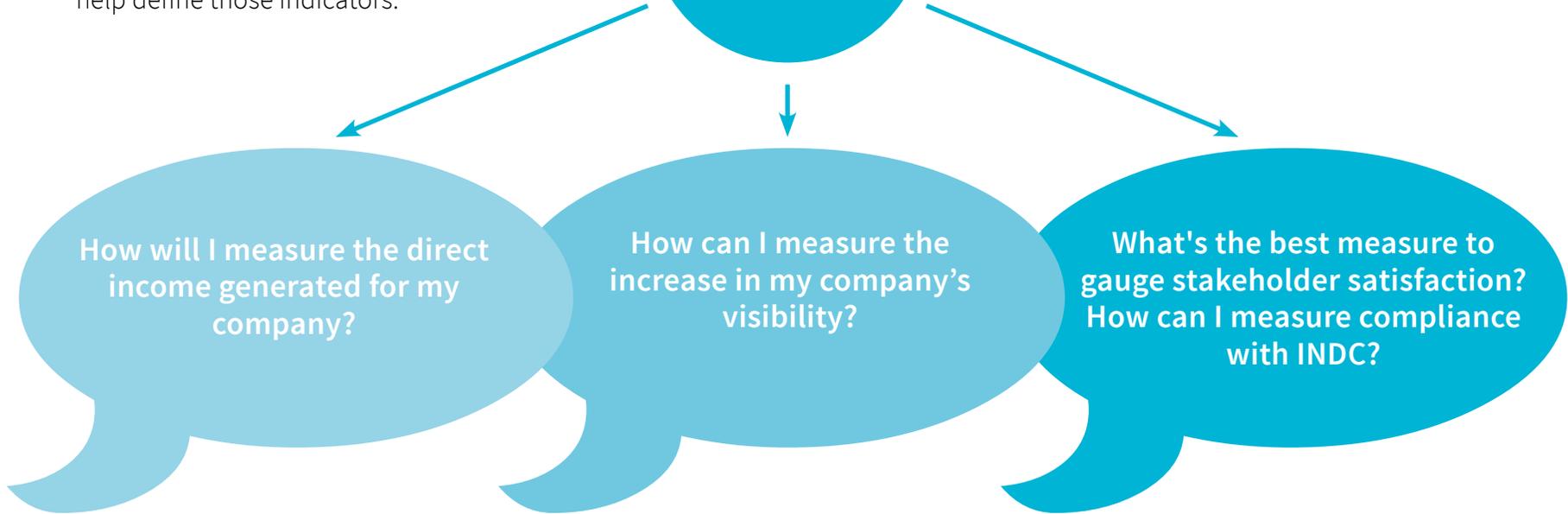
SMART INDICATORS SHOULD BE

- S**pecific
- M**easurable
- A**chievable
- R**elevant or **R**ealistic
- T**ime-sensitive



In order to develop meaningful indicators, be mindful of what you'd like to achieve. If you'd like to develop indicators that ensure a certain partnership will fulfil your target, you can start by asking questions that will help define those indicators.

Examples of QUESTIONS



**Take
Notes**



SOURCES OF VERIFICATION

The following sources can provide the proof required for your indicators



- Surveys
- Interviews
- Minutes of meetings
- Emails
- Database
- Balance sheets
- Energy/water counter
- List of materials

Company Strategic Objective							
Climate change topic	Target	Action	Budget	Action timeline	Responsible party	Indicators	Source of verification



STEP

GOALS

8

Communicate and celebrate

STEP 8 Communicate and celebrate



Communication on climate change takes place internally (with employees) and externally (with suppliers, local community, media, etc). First, climate change communication occurs within companies, where members' individual behaviours can affect the organisation's performance. So, the effectiveness of persuasive climate change messaging often depends on personal beliefs as well as the leader's environmental views, perceptions and values instilled in the company. Companies also communicate environmental issues to external stakeholders, including suppliers and the general public, in order to instil the need for action to combat climate change and describe the company's actions in regards to the issue.

IN THIS STEP YOU WILL LEARN:

- 1 The importance of internal communication
- 2 The significance of external communication
- 3 Tools for effective communications
- 4 The value of celebration



The language of climate change

Being able to translate climate change terminology to simple language can be a complicated task, nonetheless necessary in order to engage people to adopt climate-friendly behaviour. Although communication is essential for the success to any project, scientific language will reach a limited audience and will motivate only a fraction of this audience.

The value of images and stories

The use of storytelling in communicating climate change can be very effective. The use of personal narratives is more effective than numbers and technical graphs, as it conveys powerful messages in an engaging way. People connect with personal stories and can understand the world through images. *Stories convey a specific message* containing information and knowledge, doing so in an entertaining or emotional way. They can capture the mind and soul of the recipient.



Internal communication about climate change

- Assures that all employees know everything that concerns them about climate change
- Provide people with clear standards and methodologies around climate change
Enhances knowledge, leading to more targeted and innovative ideas and solutions
- Builds a culture on climate change, doing so on the basis of a shared vision
- Creates better and more effective teams
- Helps teams maintain a shared vision and a sense of ownership in the organisation
- Encourages better partnerships
 - Helps prevent risk situations and to manage crisis situations better

Company

Managing expectations of external stakeholders

Communication around climate change inevitably creates expectations about the company's performance. Ongoing communication can help the company manage these expectations. This can be achieved through a fact-based approach to external stakeholders regarding the company's impacts and the strategy being used to address those impacts. Ongoing communication will calm the voices of those who feel the company isn't addressing impacts but is exploiting natural resources and diminishing the value of the community.



THE MESSAGE OF CLIMATE CHANGE NEEDS TO HIGHLIGHT:

- Local impacts of climate change
- The benefits of engagement with the community and economy
- Benefits for businesses and the country
- Connection with values and principles



Use the table below to create a communication plan along with different stakeholders. Some examples have been included

Stakeholders	Channels of communication	Why communicate	What to communicate	How often to communicate
1				
2				
3				
4				
5				
6				
7				
8				

EXAMPLES OF:			
Channels of communication	Reasons to communicate	What to communicate	When to communicate
Company portal	To encourage participation in climate change reduction initiatives	The company strategy	At regular intervals, e.g., every month
Company website	To talk about what climate change is	The company vision and strategy	After a major change in the company, such as a new CEO, a merger or an acquisition
Media	To ask for feedback on certain internal policies	Initiatives currently running	After important legislation on new international agendas
Personal emails	To reduce the risk that inaccurate information will cause a boycotting of your products and services	Outcomes of initiatives	When making a formal request for a meeting
Product label and information on the product	To talk about company actions and outcomes	New initiatives currently being developed	In response to emails
Open days	To request feedback on planned initiatives	General information regarding climate change	
Face to face meetings	To ask for new ideas and inputs	How climate change affects local community	
Formal reports	To guide stakeholders to certain corporate behaviours	New products and services which are environmental friendly	
Social media	To recognise and reward behaviours	Innovations in the company to reduce impacts on climate change	
Newsletters		Company recognitions, e.g., awards	
Annual financial report		The company's report on climate change or sustainability	
Annual sustainability report		An important new partnership	

Not all of the methods/examples listed here are applicable to all stakeholders. For example, the company portal will be only available to company employees. From your experience and knowledge

of your company's culture, you'll need to decide which methods are most effective for your stakeholders. You'll also need to identify what to communicate to each stakeholder. For instance, you

might decide that a new framework for calculating CO₂e emissions is more relevant to our climate change leaders and some suppliers rather than the local community.



CLIMATE CHANGE REPORTING

A form of communication includes also formal reports on environmental impacts and climate change. Reporting on climate change is becoming more popular among certain segments of stakeholders, including investors, banking institutions, the Ministry of Environment and NGOs. Various frameworks and standards ease the task of company reporting. These tools usually require that the company reports on the following areas:

- corporate strategy

- environmental and climate change strategy
- impact
- actions and initiatives to mitigate impact
- effectiveness of actions
- engagement with stakeholders

Tools include

- 1) The Global Reporting Initiative
- 2) CDP
- 3) Decision 99/1 of the Lebanese Ministry of Environment

Take Notes



The importance of celebrating a culture of climate change

Certainly a company's greatest resource is its employees, and it's because of them that great things happen. Climate change strategies are implemented by employees, new ideas originate from employees, and action plans are deployed by

them. Great achievements result from their dedication. An important way to instil a climate change culture is to recognise the company's achievements and the employees' contributions to them. Systems of recognition and rewards will help

create and maintain a unifying culture of motivation. There is no doubt that employees who are satisfied with their company and work are more loyal and hard-working than others.



Celebrate

- Commend employees' efforts towards milestones
- Keep the energy and momentum alive
- Recognise and applaud your team's success and the company's recognitions
- Cultivate employee engagement
- Reward teamwork and accountability
- Recognise the employees who've gone the extra mile



How to celebrate and recognise employees

- Offer official recognition via the company portal
- Create a new video and share on social media
- Send a formal thank-you letter
- Throw a company dinner or party
- Through the newsletter
- Create an award for specific purposes with set criteria



CHECK LIST FOR COMMUNICATING CLIMATE CHANGE

Communications about climate change should be:

- ✓ Clear and with a straightforward message
- ✓ Simple
- ✓ Accurate and based on evidence
- ✓ Multichannel
- ✓ Consistent and ongoing

SUMMARY

NOTES

IN THIS STEP YOU LEARNED ABOUT:

- Why internal communication on climate change is important
- The significance of external communications
- The benefits from celebrating
- Tools to structure your communication with stakeholders

Step 8

Summary table to facilitate the implementation of your strategy and actions

It's important to hold regular meetings. They make sure you're on track and that everyone in your team is up to speed with the progress being made. This table will help track your progress and develop a holistic picture of your climate change action plan. So, set up regular meetings and use this powerful tool.



Stages	Who is responsible for this stage?	Who will be involved in this stage (department, function)	Milestones /Deadline	Financial requirements (if any)	Objective of this step
Kickoff meeting					
Identify relevant stakeholders and consult with them; share outcomes					
Set Initiative details – SMART goals, timeline, Indicators					
Start initiative					
Monitor indicator/ progress every "x" weeks. Report progress					
Assess the progress so far. Proposed corrective activities (if required)					
Agreed corrective activities (if required)					
Communicate progress so far to relevant stakeholders					
Overall project responsibility					

Next Steps

As you now know, your organisation's climate change strategy is a long journey. You can use the table below as a guide to the next steps you can take to improve your performance. These steps will depend on your maturity level.

	Beginner	Intermediate	Leader
 <p>STEP 1 IDENTIFY YOUR CHAMPIONS</p>	<ul style="list-style-type: none"> Starts with the departments of your organisation that are most relevant to climate change. Assigns a Climate Leader. 	<ul style="list-style-type: none"> Has a climate change working group that delivers. 	<ul style="list-style-type: none"> Has a climate change committee supervised by the CEO. Has implemented a climate change working group in business units and a carbon focal point in each department.
 <p>STEP 2 IDENTIFY YOUR STAKEHOLDERS</p>	<ul style="list-style-type: none"> Starts with stakeholder identification using focus groups, interviews and online surveys to understand stakeholder views regarding climate change. 	<ul style="list-style-type: none"> Develops and runs initiatives with external partners. Establishes long term partnerships and adopts innovative processes to identify new ways of addressing the issue. 	<ul style="list-style-type: none"> Has in place advisory panels on climate change with external stakeholders.
 <p>STEP 3 DEVELOP A VISION AND POLICY</p>	<ul style="list-style-type: none"> Starts with general commitments. 	<ul style="list-style-type: none"> Runs workshops internally to engage employees in developing a common vision and participating in the process. 	<ul style="list-style-type: none"> Has a vision with concrete objectives and targets. Has a policy that includes the value chain and has ramifications for marketing, procurement and other functional departments.
 <p>STEP 4 DETERMINE THE IMPACT OF CLIMATE CHANGE ON YOUR COMPANY</p>	<ul style="list-style-type: none"> Uses external sources of information to clarify the impact of climate change in business. 	<ul style="list-style-type: none"> Has a deeper understanding, normally from the analysis of business data, which provides objective information about the climate change impacts in the organisation. 	<ul style="list-style-type: none"> Promotes impact and life cycle assessments.
 <p>STEP 5 MEASURE YOUR CARBON FOOTPRINT</p>	<ul style="list-style-type: none"> Usually begins with a GHG audit for direct emissions. 	<ul style="list-style-type: none"> Reviews the audit results and develops a plan for footprint reduction by applying appropriate improvement actions. 	<ul style="list-style-type: none"> Includes direct and indirect emissions, including upstream and downstream business relations.
 <p>STEP 6 DEFINE YOUR STRATEGY AND CLIMATE ACTION PLAN</p>	<ul style="list-style-type: none"> Starts with a high-level strategy supported by a new set of climate actions. Not easy to identify targets for all actions, as there's no track record. 	<ul style="list-style-type: none"> The climate action plan is enriched with actions that go beyond the organisational boundaries. All actions have targets. Actions are mainly internal. 	<ul style="list-style-type: none"> The strategy and action plan engages external stakeholders, and considers the business partners, suppliers and clients or final users of the product. Targets include the organisation's value chain.
 <p>STEP 7 EVALUATE AND IMPROVE</p>	<ul style="list-style-type: none"> Starts with improvements that demand lower investments and lower break-evens. 	<ul style="list-style-type: none"> Improvements begin to expand as the organisation starts to see the financial benefits associated with lower patterns of energy consumption. 	<ul style="list-style-type: none"> Improvements are measurable, specific and accurate. The financial benefit can be clearly articulated.
 <p>STEP 8 COMMUNICATE AND CELEBRATE</p>	<ul style="list-style-type: none"> Starts with communication of the GHG report. 	<ul style="list-style-type: none"> Communication of the quick wins and early results. 	<ul style="list-style-type: none"> Long-term actions are planned and directly connected to the corporate vision and strategy.

References used in this guide

- The Greenhouse gas protocol – corporate standard (2015), Available: <http://www.ghgprotocol.org/standards/corporate-standard>, [Accessed 10 May 2017]
- CSR Asia (2011), Climate change adaptation, Engaging Business in Asia, Available: http://www.preventionweb.net/files/20777_sida21.pdf, [Accessed 12 February 2017]
- Network for business sustainability (2012), Managing the business risks and opportunities of a changing climate, Available: nbs.net/wp-content/uploads/Adaptation-to-Climate-Change-Primer.pdf, [Accessed 23 March 2017]
- A. Perera, S. P. Del Pino, B. Oliveira (2013) Aligning profit and environmental sustainability: stories from industry, WRI working Paper (online), Available: <https://www.scribd.com/document/258356415/Aligning-Profit-and-Environmental-Sustainability-Stories-From-Industry>, [Accessed 2 April 2017]
- The learning Hub (2012), Organisational responses to climate change: Lessons from private sector approaches, Available: <https://www.ids.ac.uk/files/dmfile/Briefing-PrivateSectorLessons.pdf>, [Accessed 7 May 2017]
- UN Global Compact and UN environment programme (2012), Business and Climate Change Adaptation: Toward Resilient Companies and Communities, Available: http://caringforclimate.org/wp-content/uploads/Business_and_Climate_Change_Adaptation.pdf, [Accessed 19 May 2017]
- Frances G. Sussman and J. Randall Freed (2008) Adapting to climate Change: A Business Approach, Prepared for the Pew Center on Global Climate Change, Available: <https://www.c2es.org/docUploads/Business-Adaptation.pdf>, [Accessed 28 May 2017]
- Robert A. Black, James P. Bruce, I.D. Mark Egener (2014), Canadian climate change risk assessment guide: A Strategic Overview of Climate Risks and Their Impact on Organizations, Available: https://www.iclr.org/images/CC_Risk_Assessment_Guide_Interim2_Jun_8_14_.pdf, [Accessed 28 May 2017]
- 2030 Agenda for Sustainable Development, Available: <http://www.un.org/sustainabledevelopment>, [Accessed 20 May 2017]
- Brundtland Commission (1987), “Our Common Future, From One Earth to One World”, Available: <http://www.un-documents.net/our-common-future.pdf>, [Accessed 10 January 2017]
- J. Elkington, Enter the Triple Bottom Line, in The Triple Bottom Line: Does It All Add Up?, edited by Adrian Henriques and Julie Richardson, Earthscan, paperback, 2004, Available: <http://www.johnelkington.com/archive/TBL-elkington-chapter.pdf>, [Accessed 10 January 2017]
- John Elkington, 1997, Cannibals with Forks: the Triple Bottom Line of 21st Century Business, Capstone/John Wiley, hardcover, 1997
- Sustainable Development Goals, Available: <https://sustainabledevelopment.un.org/sdgs>, [Accessed 10 January 2017]
- B Resource Guide: Creating Company Policies, Available: http://www.bcorporation.net/sites/default/files/documents/portal/B_Resources_Creating_Company_Policies.pdf, [Accessed 10 January 2017]

Annex I. Case Study

MAMAlade

A marmalade factory based in Bekaa needs to develop its climate change strategy and align its actions with the objectives of the Ministry of Environment.

Name	MAMAlade
Business	Production of quality marmalade
Location	Bekaa, Lebanon
Size	154 employees

STEP 1 Identify your champions

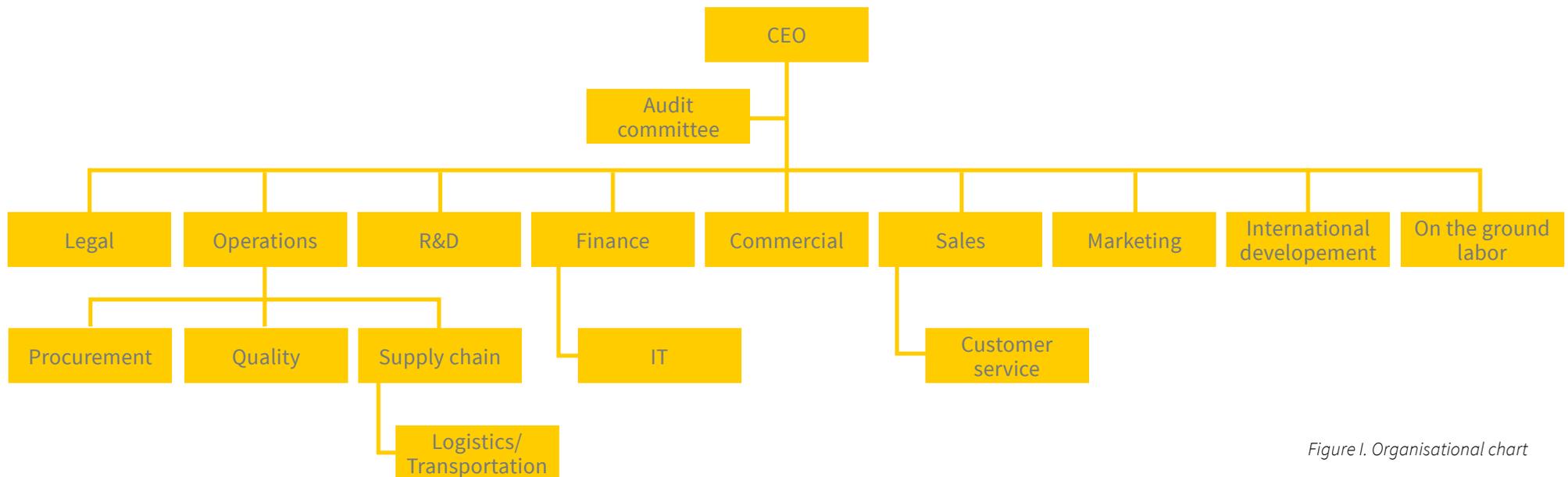


Figure 1. Organisational chart

Identification of the climate-champion representatives

Legal will be aware of the regulatory background

Operations will be aware of the environmental impacts across the supply chain

Finance will be able to articulate the financial value or cost of decisions

Sales will understand the needs and expectations of the client and will be able to bring ideas and concerns from customers to the table

Marketing will know the way to communicate environmental issues, which is a key to the success of every strategy

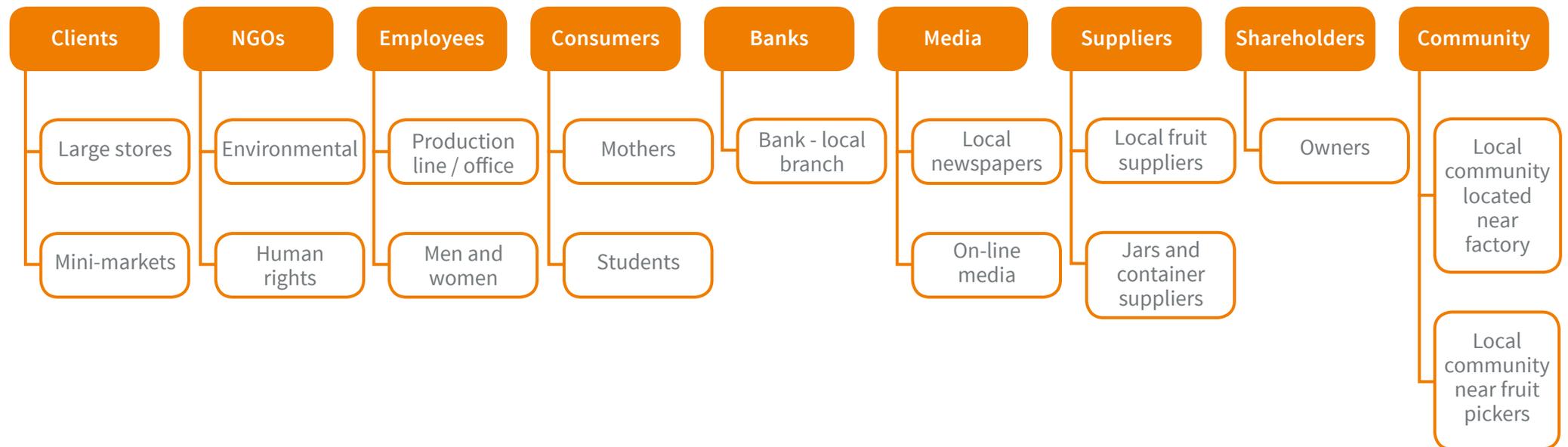
Plan for building capacity

Training/ work session	Objectives of the training / work session	Main concepts to explore in the training/ work session	Functions/ departments to invite	Champion(s) to invite	Date / duration
Training/work session 1	Understanding climate change and how your company impacts climate change	Sustainability. Climate change impacts	Legal, finance and operation departments	Anna, Khaliq	20 June 2 hours
Training/work session 2	International agenda Lebanon commitments	Paris Agreement's Sustainable Development Goals	Legal department	Kareem, Atif, Helena	10 September 1 hour
Training/work session 3	Measuring carbon footprint	What is carbon footprint How to calculate the company's carbon footprint How to reduce the carbon footprint	Operations and CSR departments	To be proposed by Operations Director	10 October 1,5 hours
Training/work session 4	Identifying partners to drive solutions for climate change	Stakeholders Stakeholder management Building partnerships	External stakeholders	To be proposed by PR Director, VP Marketing, VP Quality	10 November 5 hours

STEP 2 Identify your stakeholders

Stakeholder identification

Stakeholder subgroups are identified. The list is indicative but not comprehensive. Some stakeholder groups may not have meaningful subgroups, e.g., shareholders.



Stakeholder prioritisation

Stakeholders	Risk (1-5)	Impact (1-5)	Probability (Risk*Impact) (1-25)	Priority
Employees	Employees don't abide by our climate change strategy 3	4	12	Medium priority
Suppliers of fruits	Suppliers don't respect the guidelines set for reducing climate change 5	5	25	Very high priority
Media	Media poorly communicates or doesn't communicate our commitment to climate change 2	4	8	Low priority

Interpretation of the results

This analysis can help us prioritise stakeholders. In this case, it seems that the suppliers of fruits used to produce the marmalade have higher importance to the company in terms of climate change than they do to the media and employees. Employees – Due to the expensive internal awareness and training, the risk is 3 and the impact isn't very high.

Media – As Lebanon is a small country, the risk of the media not portraying the company accurately is limited (score 2). However, if they do, the impact of such an action will have a relatively high effect (4 out of 5) due to the power that media can have.

Risk is that which is associated with a specific stakeholder in terms of climate change. For example, how high is the risk (or influence) of this specific stakeholder for our climate change strategy or initiative? * Give "5" if the risk is very high and "1" in cases of very low or no risk.

Impact is the strength of the influence of a specific stakeholder. * Give "5" if the impact is very high, and "1" in cases of very low or no impact.

Probability is calculated by multiplying risk with impact. The highest total score will be 25 (5*5) and the lowest 1(1*1).

Priority can be high, medium or low based on company probability. The higher the probability is, the higher the priority will be. For example:

Probability levels 21-25= Very high priority	Probability levels 16-20= High priority	Probability levels 11-15= Medium priority	Probability levels 6-10= Low priority	Probability levels 0-5= Very low priority
--	---	---	---	---

Stakeholder engagement plan

Questions	Answers
Who are the stakeholders we will engage with?	At this stage, we'll select media and fruit suppliers
What kind of role each stakeholder will have?	<p>Company-media: The company will need to provide accurate information to media outlets, to facilitate the communication of company activities and commitments. This may include Media packages, press conferences, press releases, open days. Media have the responsibility of accurately communicating about the environmental performance of the company, the actions of climate change and outcomes, in a timely, unbiased and responsible way</p> <p>Company-suppliers of fruits: The company needs to set the criteria for the cultivation, picking and transportation of the fruit. These can be in regards to pesticide use, sources of water, machinery use, labour rights and forced labour issues. Suppliers have to comply with these guidelines and sign agreements or other documents that demonstrate their compliance to these rules</p>
What are the objectives associated with the stakeholder engagement?	<p>Company-media: The company wishes to spread the word about its practices and improve reputation. Media aims to offer news that are credible and improve understanding and appreciation in Lebanon of environmentally friendly practices</p> <p>Company/fruit suppliers: The company wishes to secure the best-quality material for its produce with limited impacts to climate change. Suppliers aim to secure clients and be recognised as responsible supplier</p>
What are the benefits for all stakeholders?	<p>Company / media: Company enjoys good coverage, a good reputation and accurate representation. Media enjoys recognition as a medium promoting local business, responsible business and thus distinguishes from other media outlets</p> <p>Company / fruit suppliers: The company benefits from fewer audits to verify the compliance of the supplier with the set guidelines, quality of fruits, quantity of fruits, no scandals. Suppliers benefit from continues business relationship, promotion of local agriculture and retention of workers, investment in methods that don't harm climate</p>
What are the potential risks of this engagement?	<p>Company / media: Media publishes misleading information about the company. The company doesn't respond on time to media requests for information on specific issues</p> <p>Company-suppliers of fruits: Suppliers negotiate prices or don't honour environmental or social rules of agreement. The company doesn't recognise and promote the suppliers' contributions. The company requests advancements in fruit production with no contribution to the investment</p>
What resources are required?	<p>Company / media: Dedicated person to communicate with media regularly</p> <p>Company-suppliers of fruits: Dedicated employees to work with suppliers on a daily basis; research and development</p>
What methods will we use to engage with stakeholders?	<p>Company / media: Media packages, press conferences, press releases, open days</p> <p>Suppliers: On site visits to supplier, face to face meetings, away strategy days</p>
What is the timeline for the involvement of stakeholders?	<p>Company / media: ongoing</p> <p>Company / fruit suppliers: ongoing</p>
What are the top two expectations from this engagement that need to be met for this engagement to be considered successful?	<p>Company / media: Company isn't communicating false environmental claims. Media respects the right of company for business privacy in certain areas</p> <p>Company / fruit suppliers: Suppliers honour the terms of agreement. Suppliers' audits meet agreed levels. Company honours payment terms. Company invests in training and learning of suppliers</p>

STEP 3 **Develop a vision and policy**

Vision and mission for MAMAlade

By drafting a climate change vision statement, MAMAlade demonstrates the awareness that climate change relates to our business, and that addressing it is important for long-term business success.

MAMAlade's vision is a long-term commitment to respond to climate change and minimise its harmful effects to people, communities and businesses.

Our vision is to be Lebanon's most loved brand, crafting marmalade in the most sustainable way, by sourcing locally, producing heartily and reducing our climate change impact.

MAMAlade's mission is to delight our customers with hearty marmalade that takes care of people and respects the environment.



Climate change policy for MAMAlade

Policy item	Summary of content to include
✓ Purpose Statement	Our climate change policy represents our commitment to operate with complete respect for the environment and our communities. MAMAlade seeks continuous improvements in its environmental and climate change standards and works to minimise its negative impact due to its business activity.
✓ Specifications	The policy includes the commitments we have made in order to achieve our goals for climate change protection, fully covering issues such as: <ul style="list-style-type: none"> • Conducting training and awareness sessions for all employees irrespective of role and level, on environmental protection and climate change • Assuring compliance with all applicable laws and regulations • Identifying sources of climate change, sets environmental goals, continuously monitors results and audits processes • Taking efforts to minimize GHG emissions and improve efficiency • Promoting innovation and looks for opportunities to reduce its impact • Educating consumers • Training suppliers and monitoring their performance • Developing strategies to ensure managing climate change impact is an integral part of the way we operate • Communicating our environmental commitments, requirements and performance to stakeholders.
✓ Implementation section	The responsibility for overseeing the implementation of this policy lies with the Environmental Committee of the Board of Directors.
✓ Effective date	The 10th of 2017 is considered the effective day of this policy. All decisions and actions made after the effective date must comply with the policy.
✓ Statement of applicability and scope	MAMAlade fully seeks to promote environmental awareness and responsibility and fully complies with the current legislation, and takes actions to surpass it. The present policy on climate change is implemented in all facilities of MAMAlade. It is applicable to all management staff and employees operating in our facilities.
✓ Background	MAMAlade considers the environment to be everyone's responsibility. All employees are accountable for the impact of our performance to the communities in which we operate as well as to the environment. Taking actions to combat climate change is a responsibility we must honour.
✓ Definitions	Climate change – Is the change seen in climate characteristics (including rainfall, wind, and temperature)? While weather refers to atmospheric conditions over short periods of time, climate is the long-term behaviour of the atmosphere; an accumulation of weather over time. Although daily weather may appear relatively constant, incontrovertible scientific data shows that Earth's climate is changing. The result is an increase in severe weather events, drought, changes in ocean chemistry, and rising tides.

STEP 4 Develop a vision and policy

Areas	Your company's risks from climate change
✓ Regulatory	Products were not exported to Europe due to the lack of information on the company's environmental commitment
✓ Physical	Increase in costs of energy (electricity), fuel Damage of raw material due to the heat waves Floods causing damages in the loading bay
✓ Reputational	Lack of transparency – campaign launched to highlight the company's green image and publicity of being green
✓ Legal	Severe drop in income, causing a legal problem in regards to amounts overdue
✓ Marketplace	High demand for climate-friendly products which aren't part of the company's offering. High demand for products sources locally which the company does not offer

Areas	Opportunities from climate change for your company
✓ Regulatory	Reducing the running costs by requesting low interest loans for installing renewable energy and energy efficiency devices
✓ Physical	Moving to remote mountain regions reduced our costs from floods impacts Switching to new types of marmalade by switching the type of fruit
✓ Reputational	Addressing climate change allowed us to efficiently communicate the environmental impacts
✓ Legal	Comply with international regulation
✓ Marketplace	Penetrate new markets and attract new clients

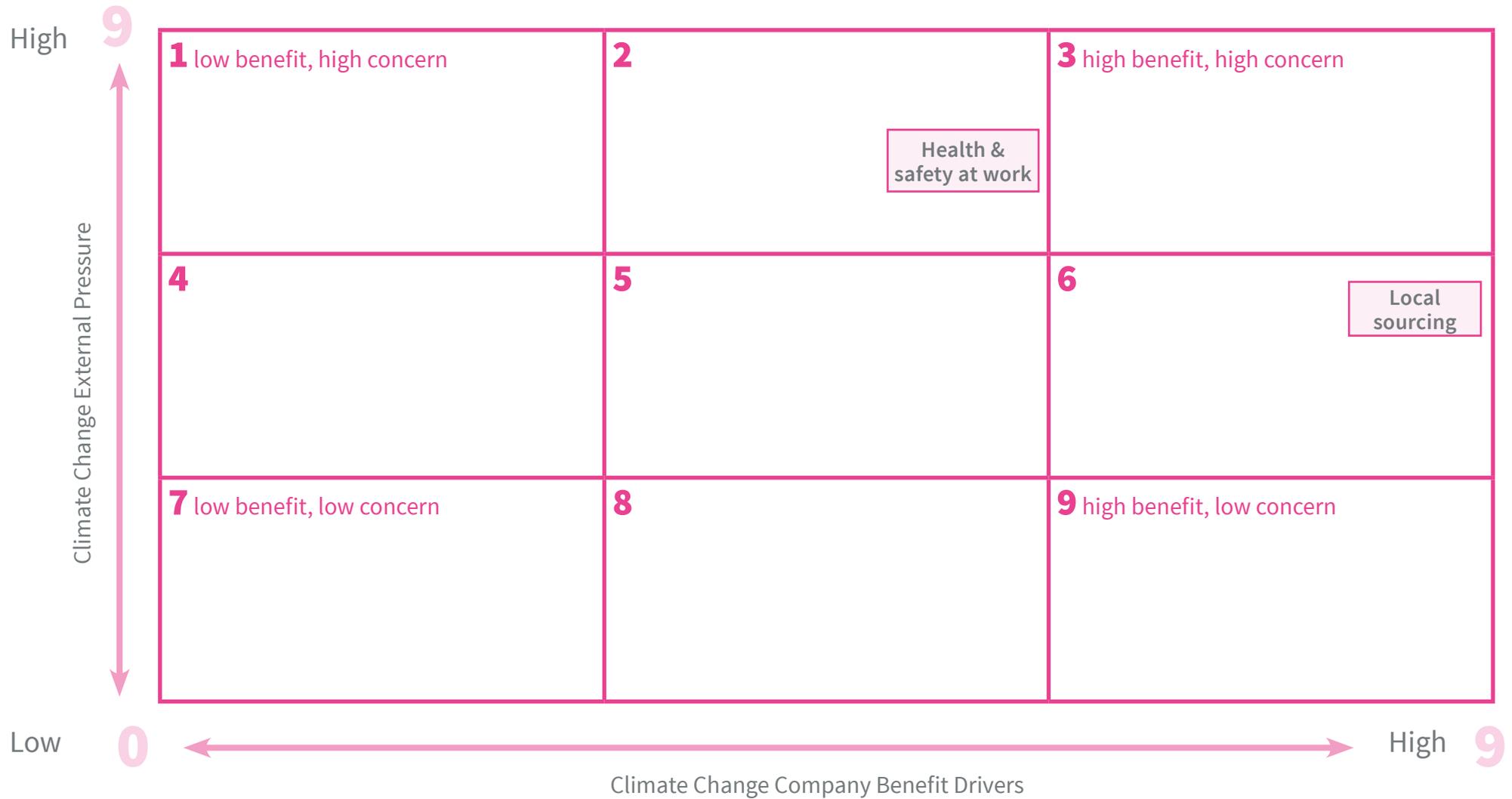
Ranking climate change risks and opportunities

Climate Change External Pressures				
Topics (Risks or Opportunities)	Is this topic important to stakeholders?	Is this topic connected to laws, regulations and international agreements?	Do experts see this topic as critical in your sector?	External Pressure Total Score
Local sourcing	3	0	2	5
Health & safety at work	3	3	2	8



Climate Change Internal (Company) Benefit Drivers			
How critical is the contribution of this topic in the financial situation of the company?	Can this topic help the company increase its share of a certain market?	Will this topic affect our company's decision-making in the years to come?	Company Benefit Total Score
3	3	3	9
2	2	2	6

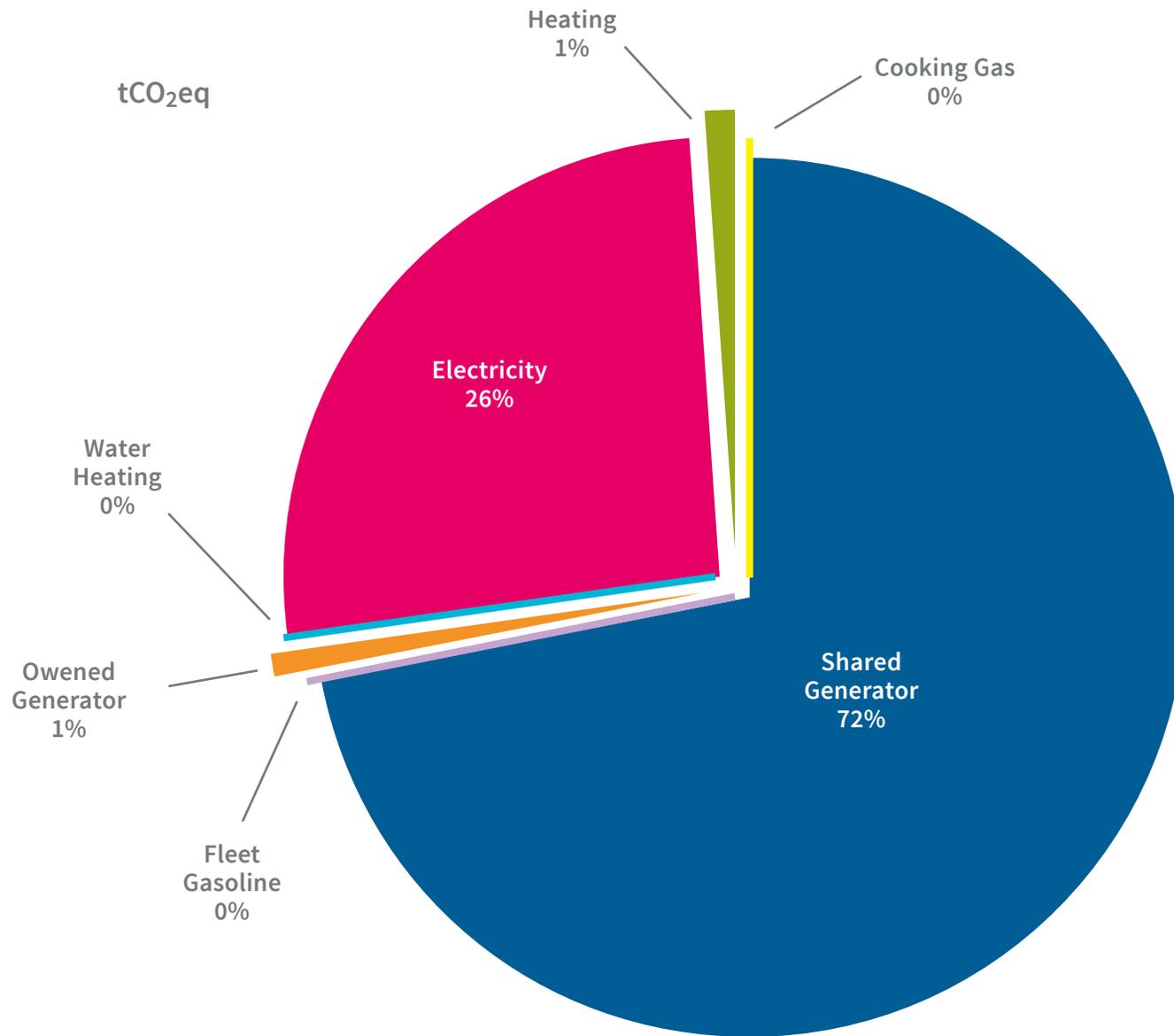
Mapping climate change risks and opportunities



STEP 5 Measure your carbon footprint

The carbon footprint of MAMAlade has been measured using a tool provided by the Ministry of Environment

Consumption Data			tCO ₂	tCO ₂ (N ₂ O)	tCO ₂ (CH ₄)	tCO _{2eq}
Electricity	145,678	kWh				94.69
Combustible fuels						
<i>Diesel for owned generator</i>	1,500	Litres	3.96	0	0.01	3.97
<i>Cooking gas</i>	739	Kg	1.18	0	0	1.18
<i>Diesel for heating</i>	1,000	Litres	2.64	0	0.01	2.65
<i>Diesel for water heating</i>	300	Litres	0.79	0	0	0.79
<i>Lubricants</i>	24	Litres	0.03	0	0	0.03
Fleet vehicles						
<i>Gasoline</i>	400	Litres			0.91	0.91
<i>Diesel</i>	120	Litres			0.32	0.32
<i>Shared generator</i>	300	Amperes				266.64
<i>(Triple-phase)</i>	1300	Hours				



STEP 6 Define your strategy and climate action plans

Climate change goals

Our vision is to be Lebanon’s most-loved brand. We craft our marmalade in the most sustainable way, by sourcing locally, producing heartily and reducing our climate change impact.

Strategic Goal	Reduce impact from transportation (Mitigation)	Reduce impact from power consumption (Mitigation)	Water conservation and reduction (Adaptation)
Recourses required	Climate change champions Financial analysis	Climate change champions Financial analysis	Climate change champions Financial analysis
People involved	Climate change champions from: finance, business, operations, suppliers	Climate change champions from: finance, business, operations, suppliers	Climate change champions from: finance, business, operations, suppliers
Policies linked	Climate change policy	Climate change policy	Climate change policy
Initiatives or actions required	Conduct transportation analysis. Identify common pick up areas. Identify potential solutions. Select /implement the most impactful.	Measure power consumption. Identify areas of high consumption. Consider innovations. Make energy-savings projections. Implement.	Measure water consumption. Identify areas of high consumption. Consider innovations. Make water-savings projections. Implement.
Timeframe	1 month for analysis. 1 month for solution identification. 1 month for selection and deployment	1 month for analysis. 2 months for solution identification. 3 months for selection and deployment	1 month for analysis. 3 month for solution identification. 5 months for selection and deployment

Design your climate action plan

Company Strategic Objective - Reduce climate change impact					
Climate change topic	Target	Initiative	Budget	Initiative timeline	Responsible party
Electricity consumption	Reduce electricity consumption by 10% within 2 months in HQ. Reduce fuel consumption by 15% within 2 months in HQ.	Install motion detector for lighting (mitigation action)	To be researched	2 months	John (from Department X)
Water consumption	Reduce water consumption by 5% within 2 months in HQ.	Install motion detector for water conservation in toilets (Adaptation Action)	To be researched	1 month	Hassan (from Department X)
Fuel consumption	Reduce fuel consumption by 30% within 1 month in the factory. Reduce fleet by 10 cars	Shuttle bus to pick and return employees from city centre to work (mitigation & adaptation action)	To be researched	3 months	Fatima (from Department X)

Evaluation of the actions options

Action	Cost	Effectiveness	Acceptability	Final evaluation
1 Install motion detector for lighting	Estimated Investment of 1000 USD- one off	Estimated Benefit 200 USD per month	High	Approved. Action plan to be deployed
2 Install motion detector for water conservation in toilets	Estimated investment of 500 USD- one off	Estimated Benefit 100 USD per month	High	Approved. Action plan to be deployed
3 Shuttle bus to pick and return employees from city centre to work	Estimated investment 350000 USD- one off Driver and fuel cost per month – 2000USD	Replacement of 5 vehicles Service for 20 employees Reduction of CO ₂ emissions – X /month	Medium Further investigation is required	Fatima to conduct further viability analysis to cover 5-10 years

STEP 7 Evaluate and improve

Test your SMART goals

Goal: Reduce the total electricity consumption by 8%



Specific goals	Measurable	Achievable	Relevant or realistic	Time-sensitive
<p>The goal isn't specific. It needs to be more specific and include Mamalade measures</p> <p>Example of Mitigation goal</p> <p>A specific goal would need to specify the facilities. Examples include the following:</p> <p>Washing unit: Reduce water consumption in the washing unit by 10% and electricity consumption by 2%</p> <p>Reduce GHG electricity consumption in the head office by 8%</p> <p>Reduce electricity consumption in the labelling equipment by 3%</p>	<p>The initial goal was not measurable</p> <p>A measurable goal should include measurement and state exactly what needs to be achieved</p> <p>Reduce the total electricity consumption in the head office by 80Kwh (8% reduction from current level)</p> <p>Having now identified the sources and set the specific targets, the goal is now specific, as it details the exact change that needs to be achieved</p>	<p>Goal is assumed to be achievable, since:</p> <ol style="list-style-type: none"> 1) the climate champions have all agreed to this goal during a meeting organised for this particular purpose 2) In addition, the early study of an external consultant was taken into consideration, highlighting the possibility of a 15% reduction (max.) 	<p>An external consultant would have to assess the current situation in order to finalise the goal and assure feasibility of the set goal</p> <p>The results of the early study should be revisited to confirm the feasibility of the goal</p>	<p>The initial goal is not time-sensitive. A time-sensitive goal would include the following information:</p> <p>-To be achieved in 5 months from the agreement date</p> <p>Or</p> <p>-To be achieved by July 2018</p> <p>Or</p> <p>-To be achieved for the head office by January 2018 and for the factory by July 2018</p> <p>Additional milestones can be developed to assist in meeting the goals, e.g., assessment by external consultant to be completed 1 month after agreement</p>

Example of an adaptation goal

Adaptation goal

An effective goal would need to be specific. Examples include the following:

- 1 Increase the production of raw materials through natural means (no pesticides) by 10% per year for the top five fruits used
- 2 Improve the technical skills for farmers located in the Bekaa region and require 50% of pass rate in the technical capability assessment
- 3 Increase awareness on climate change impacts in fruit production for 30% of key suppliers by the end of 2017

Adaptation actions may include

- 1 Increase production through natural means include the following:
 - Collaborate with farmers to increase the production via natural ways (bees, planting high trees around the fields, depends on organic pesticides, organic control of pests, increase the dependency on machinery to plant, collect fruits and reduce the costs, etc.)
 - Partner with NGOs to improve the technical skills and awareness of farmers
 - Partner with local agricultural association to create and increase awareness on climate change for farmers
- 2 Partner with NGOs to increase awareness on climate change for community
- 3 Collaborate with local agricultural association to reduce the impact of storms and avoid increases in raw materials
- 4 Collaborate with local governmental bodies to create long-term policies and improve the local infrastructure

Company Strategic Objective - Reduce climate change impact

Climate change topic	Target	Initiative	Budget	Initiative timeline	Responsible party	Indicators	Source of verification
Electricity consumption	Reduce electricity consumption by 10% within 2 months in the head office Reduce fuel consumption by 15% within 2 months in the head office	Install motion detector for lighting (mitigation action)	To be researched	2 months	John (from Department X)	KhW of electricity consumed within 2 months Lt of fuel consumed within 2 months from Head Office	Electricity bill, electricity meter Bill for fuel purchase
Water consumption	Reduce water consumption by 5% within 2 months in the head office	Install motion detector for water conservation in toilets (Adaptation Action)	To be researched	1 month	Hassan (from Department X)	Lt of water consumed within 2 months from Head Office	Water bill, water consumption measurements
Fuel consumption	Reduce fuel consumption by 30% within 1 month in the factory Reduce fleet by 10 cars	Shuttle bus to pick and return employees from city centre to work (Mitigation & Adaptation Action)	To be researched	3 months	Fatima (from Department X)	Lt of fuel consumption from 10 cars currently in use Cost of driver Cost to purchase bus	Bill for fuel purchased Offers from suppliers for bus purchase based on specifications

STEP 8 Communicate and celebrate

Stakeholders	Channels of communication	Why communicate	What to communicate	How often to communicate
Employees	Company portal Personal emails Newsletters Team meetings	Assure understanding of strategy and actions Motivate to participate in actions Confirm project is running according to schedule To ask for new ideas and inputs Provide feedback	Policies Procedures Events Success	Daily or when requested
Customers	Company website Media/ Marketing Open days	Inform about new initiatives currently being developed Keep them engaged and informed Increase brand awareness	Company recognitions, e.g., awards	Monthly or when requested
Media	Press releases Press conferences Interviews	Keep them accurately informed	Innovation Event recognition	Monthly or for major event

Summary table to facilitate the implementation of your strategy and actions

Stages	Who is responsible for this stage?	Who will be involved in this stage (department, function)	Milestones/deadlines	Financial requirements	Objective of this step
Kick off meeting	Manager / chief technician	Chief technician, Chief of operations, Quality Control, Financial manager, Purchasing manager	Clear vision on how to reduce the GHG emissions	Clear vision on the financial capacities	Start the strategy
Identify relevant stakeholders and consult with them. Share outcomes	Manager	Chief technician, Purchasing manager	Report on stakeholders' input	Financial manager, Chief technician, purchasing manager	Input from stakeholders
Set Initiative details - SMART goals, timeline, Indicators	Consultant, manager, chief technician, Financial Department		Identify reduction strategy Set time line for actions	Cost of each step	Develop a long-term reduction strategy
Start initiative	Consultant	Chief technician, Chief of operations, Financial manager	Launch the energy audit	As per contract, first instalment	
Monitor indicator/ progress every "x" weeks. Report progress	Chief technician and manager	Chief of operations, Financial manager, Consultant	Clear vision on the progress Clear vision on achievements	Financial reports on the costs and percentage from the total budget	Monitor the progress to achieve the targets



Stages	Who is responsible for this stage?	Who will be involved in this stage (department, function)	Milestones/deadlines	Financial requirements	Objective of this step
Assess the progress so far. Proposed corrective activities (if required)	Chief technician / consultant	Chief of operations, Financial manager, Manager	Progress report		Reduce errors / avoid budget excess
Agreed corrective activities (if required)	Chief technician / consultant	Chief of operations, Manager			
Identify NGO to work with	Communications manager / PR	Manager, financial manager, HR	Identify the most suitable NGO/activity to work on and develop an adaptation plan	Calculate the budget and link it to timeline - Calculate the return on investment from this collaboration	Identify the most suitable action and NGO
Communicate progress to relevant stakeholders	Communication manager	Manager, Chief of operations, Consultant, Financial manager	- Decide on the communication mode - Decide on communication material	Most cost-efficient communication mode	Keep stakeholders informed of progress
Overall project responsible	Chief technician	Manager, Chief of operations, Communication manager, Financial manager			

Ministry of Environment GHG measurement tool

Reporting of Greenhouse Gas Emissions from Private Companies and Institutions Decision 99/1 of 11/4/2013 <http://climatechange.moe.gov.lb/youandcc>

Dear partner from the private sector,
Thank you for your interest in reporting your Greenhouse Gas Emissions!
This reporting activity is undertaken under the scope of the ministerial decision 99/1 of April 11, 2013. The decision states that every year, the Ministry of Environment will issue a certificate of acknowledgment for each company that reports its Greenhouse Gas Emissions for the given year.
The information you provide in this workbook will be compiled with data provided by other companies, and will help the Ministry of Environment estimate National Greenhouse Gas Emissions from the industrial and commercial sectors. Hence, numbers contained in this workbook will not be made public.

This workbook is designed to facilitate data entry by companies and/or their consultants and generate immediate results based on the revised 1996 IPCC guidelines. A guidance on the use of this model is provided below. Should you require any assistance in filling this form, kindly contact the Ministry of Environment by phone: 01-976555 ext. 469 or by e-mail: climatechange@moe.gov.lb.

A46	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
46	General guidelines																			
47	- Only introduce values in the shaded cells																			
48	- If one or more category is not applicable to your company, leave the value "0" in the shaded cell.																			
49	- Always make sure that the value you entered in the model is in the correct unit. All units are mentioned under each parameter in the "Emission Calculation" sheet of this workbook.																			
50	- Once you enter your data, the model will automatically calculate your direct and indirect emissions of Greenhouse Gases (CO ₂ , CH ₄ and N ₂ O) from specific categories.																			
51	The model will also generate a summary of some Air Pollutant (NMVOC, CO, NOx and SO ₂) Emissions on the first sheet of this workbook, named "Background Information".																			
52	Calculate Indirect Emissions from Purchased Electricity																			
53																				
54	Consumption from Electricité du Liban (EDL)	Your EDL bills contain your Kilowatt/hour consumption of electricity. Insert the KWh sum of all your bills of the reporting year in the shaded cell.																		
55	Shared generators: Current Working hours	If you do not own a private generator and are connected to a neighborhood generator, you need to first determine whether you have a single phase or triple phase subscription. Then, in the appropriate row (leave the other one empty), insert the number of Ampers you are subscribed to and the number of hours of electricity that the shared generator supported you during the reporting year.																		
56																				
57																				
58	Calculate Direct Emissions from Stationary Fuel Combustion																			
59																				
60																				
61	Consumption of Gas/Diesel Oil for Electricity, Space Heating and Water Heating	If you own a generator for power production, enter the amount of Gas and/or Diesel Oil (in liters) used during the reporting year to run the generator. If you use Gas and/or Diesel Oil to heat your water and your space, enter the amount of Gas and/or Diesel Oil (in liters) used during the reporting year for these purposes. If you do not have the amount of Gas/Diesel Oil used for each of these purposes separately, enter the entire amount (in liter) in one of the cells and leave the value "0" in the two others.																		
62																				
63	Consumption of Fuel for cooking	If you consume fuel for cooking (LPG), enter the amount of fuel (in liters) used for this purpose during the reporting year.																		
64	Consumption of Lubricants	If you consume lubricants to run your equipment, insert the amount of lubricant (in liters) used for this purpose during the reporting year.																		
65																				
66	Calculate Emissions from Buisness related Transport																			
67	Consumption of Gas/Diesel Oil and/or Gasoline for Transport	If your company owns vehicles, enter the amount of Gas/Diesel Oil and/or Gasoline (in litres) consumed during the reporting year to run these vehicles. Note that only Buisness related trips should be included. Commuting to and from work should not be considered here																		
68																				

Reporting of Greenhouse Gas Emissions from Private Companies and Institutions
 Decision 99/1 of 11/4/2013 <http://climatechange.moe.gov.lb/youandcc>

O19

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1																						
2				Greenhouse Gas Inventory report covers the year: 20...																		
3																						
4				Company																		
5				Address																		
6				Contact Person																		
7				E-mail																		
8				Phone																		
9				Is the verifying party accredited?																		
10																						
11																						
12				Direct Greenhouse Gas Emissions from Company (tonnes)				Direct Air Pollutants Emissions from Company (tonnes)														
13																						
14				Total direct CO ₂ emissions		0,00	Total direct CO emissions		0,00													
15				Total direct CH ₄ emissions		0,00	Total direct NMVOC emissions		0,00													
16				Total direct N ₂ O emissions		0,00	Total direct NOx emissions		0,00													
17				Total direct CO ₂ eq emissions (t)		0,00	Total direct SO ₂ eq emissions (t)		0,00													
18																						
19																						
20				I hereby certify that the statements and information in this application form are true and correct to the best of my knowledge.																		
21																						
22																						
23				Name:	Date:	Signature:														
24																						
25																						
26																						
27																						
28				For any inquiry regarding reporting the Greenhouse Gas Emissions, please contact the Ministry of Environment - Phone: 01-976555 ext. 469, E-mail: climatechange@moe.gov.lb																		
29																						
30																						
31																						
32																						
33																						
34																						

Summary / Instructions / Emission Calculation

PageSide: Summary

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Summs = 0

Reporting of Greenhouse Gas Emissions from Private Companies and Institutions
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Indirect Emissions from Purchased Electricity										
CO ₂ Emissions			CO ₂ Emissions							
Consumption (KWh)	Emission Factor (t CO ₂ /MWh)	CO ₂ emissions (t CO ₂)	Current (A)	Working hours (hours)	Voltage (V)	Emission Factor (t CO ₂ /MWh)	CO ₂ emissions (t CO ₂)			
EDL bill	0	0,65	0,00	0	0	220	1,3	0,00		
						380	1,3	0,00		
Direct Emissions from Stationary Fuel Combustion										
CO ₂ Emissions			CH ₄ Emissions			N ₂ O Emissions				
Consumption (t)	Consumption (t)	Conversion Factor (TJ/1000t)	Carbon Emission Factor (t C/TJ)	CO ₂ emissions (t CO ₂)	CH ₄ Emission Factor (t/TJ)	CH ₄ emissions (t CH ₄)	CO ₂ equivalent (t CO ₂)	N ₂ O Emission Factor (t/TJ)	N ₂ O emissions (t CO ₂)	CO ₂ equivalent (t CO ₂)
Gas/Diesel Oil for Electricity	0	43,33	20,2	0,00	0,002	0,00	0,00	0,0006	0,00	0,00
Gas/Diesel Oil for Space Heating	0	43,33	20,2	0,00	0,002	0,00	0,00	0,0006	0,00	0,00
Gas/Diesel Oil for Water Heating	0	43,33	20,2	0,00	0,002	0,00	0,00	0,0006	0,00	0,00
Heavy Fuel Oil for Boilers	0	40,19	21,1	0,00	0,002	0,00	0,00	0,0006	0,00	0,00
Gas for cooking	0	47,31	17,2	0,00	0,005	0,00	0,00	0,0001	0,00	0,00
Lubricants	0	40,19	20	0,00	0,002	0,00	0,00	0,0006	0,00	0,00
TOTAL				0,00		0,00	0,00		0,00	0,00
Business Related Transport										
CO ₂ Emissions			CH ₄ Emissions			N ₂ O Emissions				
Consumption (l)	Consumption (t)	Conversion Factor (TJ/1000t)	Carbon Emission Factor (t C/TJ)	CO ₂ emissions (t CO ₂)	CH ₄ Emission Factor (t/TJ)	CH ₄ emissions (t CH ₄)	CO ₂ equivalent (t CO ₂)	N ₂ O Emission Factor (t/TJ)	N ₂ O emissions (t CO ₂)	CO ₂ equivalent (t CO ₂)
Gasoline	0	44,8	18,9	0,00	0,02	0,00	0,00	0,0006	0,00	0,00
Gas/Diesel Oil	0	43,33	20,2	0,00	0,005	0,00	0,00	0,0006	0,00	0,00
TOTAL				0,00		0,00	0,00		0,00	0,00





Download guidebook



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THE FEDERATION
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INDUSTRY & AGRICULTURE IN LEBANON



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d'Appolonia Pescares Typsa Sviluppo Globale

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