



# ANNUAL SUSTAINABILITY REPORT 2020

CARBON FOOTPRINT & OFFSETTING



Campbell River Whale Watching &  
Adventure Tours Says "Thank You" to  
Nature



Completed in cooperation with  
**Wilderness International**

# Annual Sustainability Report 2020

## Carbon Footprint & Offsetting

### Campbell River Whale Watching & Adventure Tours Says “Thank You” to Nature

#### Summary

Campbell River Whale Watching & Adventure Tours is a carbon neutral whale watching and grizzly bear tour company based on Vancouver Island, BC. The company has an office/reception space at The Discovery Harbour Marina on Dock E in Campbell River, one company vehicle, and seven boats.

2020 marks the third year that Campbell River Whale Watching & Adventure Tours has measured, reported, and offset their carbon footprint.

Total emissions in 2020 came to 150.65 t CO<sub>2</sub>e. This exceptionally low carbon footprint results from the long period of forced business closure and low passenger numbers due to the COVID-19 pandemic. The low number of passengers is also why the per passenger emissions rose. Nonetheless, fuel usage remains the greatest contributor to the overall carbon footprint, followed by fresh-water use. In 2020, Campbell River Whale Watching & Adventure Tours and their guests have protected 2310 m<sup>2</sup> of pristine old-growth forest in British Columbia, and guests voluntarily contributed an extra \$720, totaling 3030m<sup>2</sup> of wilderness protected. The trees in this area have sequestered 317.51 t CO<sub>2</sub> in their biomass, which is double the amount that would have been necessary to offset Campbell River Whale Watching’s carbon footprint entirely. This is an admirable assumption of responsibility for habitat and biodiversity protection sustainability in general. In total, since 2018, the company together with its guests has protected 20359 m<sup>2</sup> of forest.

#### Company Information

**Company Name** Campbell River Whale Watching & Adventure Tours

**Contact** Tyler Bruce: [tyler@crww.ca](mailto:tyler@crww.ca) , 250-792-0185 | Stephen Gabrysh: [stephen@crww.ca](mailto:stephen@crww.ca) , 778-874-3353

**Description** one office/reception building, seven boats, one company vehicle

**Reporting Period** January 1<sup>st</sup>, 2020 – December 31<sup>st</sup>, 2020

**Primary Measurement** Carbon Dioxide Equivalent (CO<sub>2</sub>e)

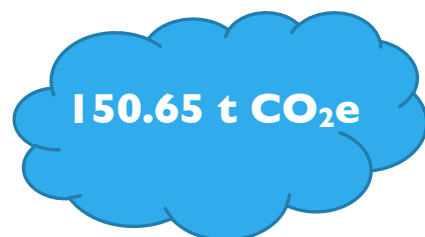
**Reporting/Calculation Guidelines** Basis: data of 2020

**Offsetting Approach** Protection of pristine primary forests as wildlife habitat and carbon storage in the Toba Valley, BC with Wilderness International

**Total Emissions all Scopes:**

**Emissions per Passenger:**

**Total Offset:**

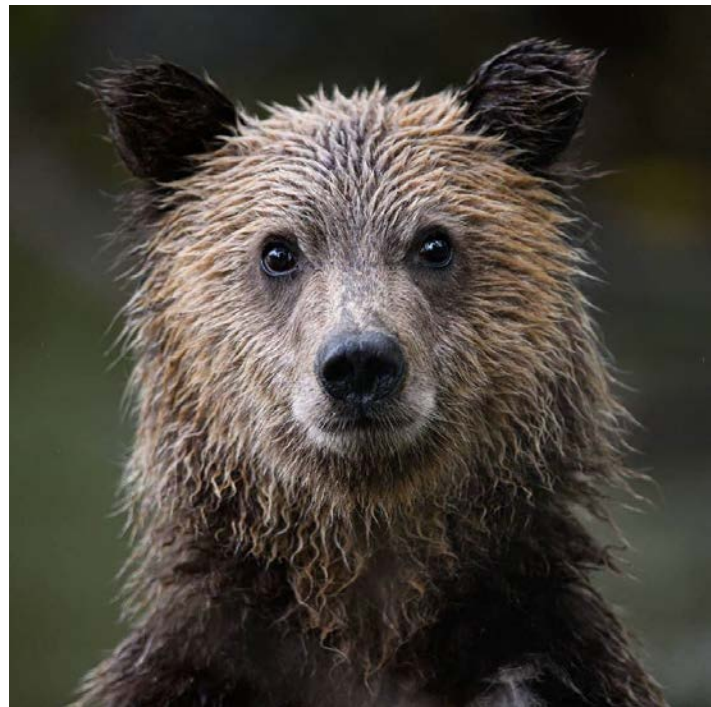


94.6kg CO<sub>2</sub>e



3030 m<sup>2</sup> of ancient forest protected

2x the area needed to offset emissions



## About Wilderness International

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Wilderness International is a Canadian-German non-profit organization. Our passion is protecting unique and pristine wilderness areas all over the world. Right now, our focus is on the last old-growth forests of the West Coast of British Columbia. The protected areas are located in the Toba Valley, 160 km north of Vancouver City and 100 km east of Campbell River.

There, we have the chance to protect primary forests and wildlife habitat legally secure through purchase as property. The entry in the land registry marks Wilderness International as legal owner of the forest areas. We leave the areas as they are, as undisturbed unique ecosystems. The purchases are refinanced by donations.

Thereby, together with over 20000 students in Germany and various partners like Air Canada, DIAMIR, Herolé and many more, we have been able to protect more than 4.58 million m<sup>2</sup> of temperate rainforest. Every donor receives a personalized certificate with the exact geo-coordinates of the area of forest protected. We strive to engage all kinds of different people in our projects to protect as much forest as possible.

Numerous scientific institutions support our research projects on CO<sub>2</sub>-absorption and biodiversity in the coastal rainforests.

This rainforest is home to ancient tree giants, wild Grizzlies and crystal-clear rivers full of lively salmon. And yet, only 25% of this valuable ecosystem remain. The protection of the remaining ancient forests is essential, as we profit from their benefits all over the world.

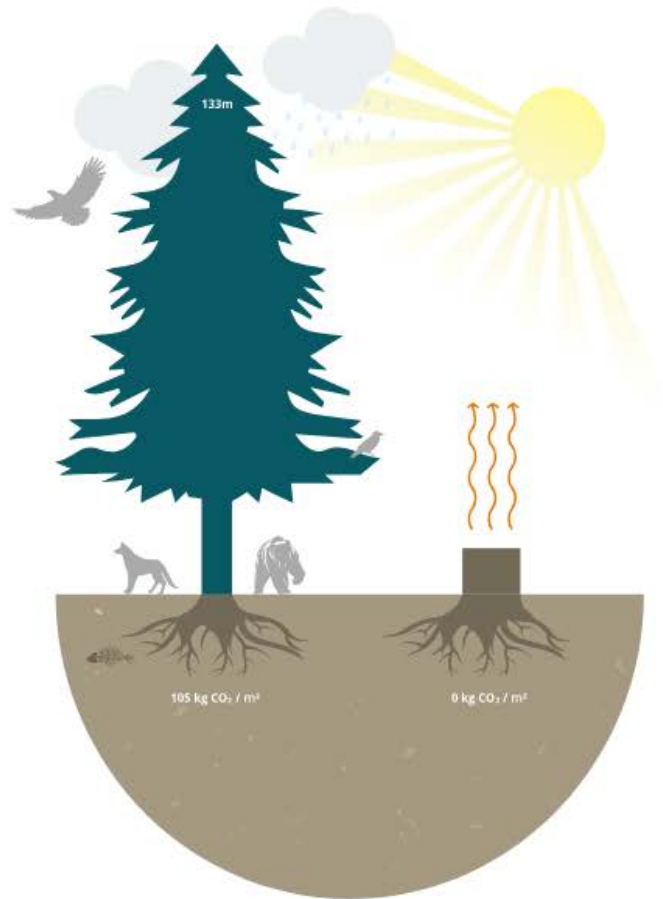
Wilderness areas are expressions of nature in its most original form. They are our inspiration, and our ancient home. Only in these ecologically most diverse areas is everything connected in a fragile natural balance. If this harmony is destroyed, the network of life is also broken.



## Wilderness International's CO<sub>2</sub> Research & Offsetting

Led by our forestry scientist Kai Andersch and our geography scientist Hannes Holtermann in cooperation with Professor Andreas Huth, the leading German forest carbon data scientist from the Helmholtz-Centre of Environmental Research in Leipzig, we have established 24 permanent sample plots in the forest which we use for regular remeasurements of the biomass of trees. The trees in the Toba Valley sequesterate 28.55 kilograms of carbon per square meter each, equaling 104.79 kilograms of CO<sub>2</sub> per square meter of rainforest.

Over the centuries of its growth, a square meter in the temperate rainforest sequesters 104.79kg of CO<sub>2</sub> in their biomass. Even more carbon dioxide is sequestered while the trees continue to grow. Should the forest be logged, the sequestered CO<sub>2</sub>-storage is released when processing the wood. Biodiversity is lost, and without the natural cooling functions of the vegetation it gets drier and hotter.



By protecting forest, CO<sub>2</sub> remains sequestered in living biomass, and biodiversity and habitats are preserved for all times. This is the perfect way to say “Thank you” to nature. This balances out unavoidable emissions.

The advantage of our unique approach lies in the combination of the protection of forest and river habitat with CO<sub>2</sub> offsetting projects. Wilderness International guarantees the location and preservation of every square meter of land by certificate with geo-coordinates.

## Cooperation: Wilderness Protection and Carbon Neutrality

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Campbell River Whale Watching & Adventure Tours needs intact nature to operate the business. Protecting nature means protecting the very base of their business and saying “Thank you” to nature for the great experiences it provides its guests while on their wilderness tours.

While offsetting carbon emissions, Campbell River Whale Watching & Adventure Tours also protects prime salmon habitat, the very base of life of the whales, grizzlies and other animals that guests come to see. They take action locally and directly connect their conservation efforts to their guests’ experience. The real conservation of rainforest in BC makes their engagement directly traceable for the guests and the public.

After their tour, every guest receives a postcard with a code on it. With this code, they are able to go online to create and receive their personalized certificate for the area of forest they helped to protect. That way, guests take a tangible souvenir home with them, a little piece of Canada, a fond memory materialized. Additionally, every guest is able to voluntarily donate more money if they chose to. Every year, Campbell River Whale Watching & Adventure Tours gets a certificate showcasing the amount of forest that was protected.

In 2020, Campbell River Whale Watching & Adventure Tours together with its guests has protected 1m<sup>2</sup> of forest for every person going on a Whale Watching or Adventure tour or Grizzly bear trip. This approximately equals the size of the fin of an Orca whale for every guest. Added to that, guests donated a \$4.00 CAD conservation fee on Toba Inlet Grizzly bear tours. Additionally, guests were incentivized to protect an extra \$1.00 CAD.

In 2021, guests will be incentivized to donate a minimum of \$2.00 CAD or more, and to offset the emissions of their entire trip in BC.



**Campbell River Whale Watching & Adventure Tours is saying “Thank you” to nature for the great experiences it provides us with during every whale watching and Grizzly bear tour!**

● N50° 30' 23,153" W124° 11' 46,067"

wilderness-international.org/3/44040

3/44040

SPONSORSHIP NUMBER



# WILDERNESS PROTECTION CERTIFICATE

For  
**Campbell River Whale Watching**  
*Carbon Footprint Compensation and Guest Donations 2020*

This wilderness sponsorship protects **3.030 m²** of temperate rainforest. It is a unique habitat where wild Grizzlies fish for salmon in the crystal-clear river. This oasis of biodiversity is located on Canada's West Coast. Wilderness International holds legal title to the land which ensures that it is protected permanently for all our futures.

The forest in this area sequestered **2.481,427 t CO<sub>2</sub>** in its biomass.

→ DRESDEN, 08.03.2021

**Kai Andersch**  
Director  
Wilderness International

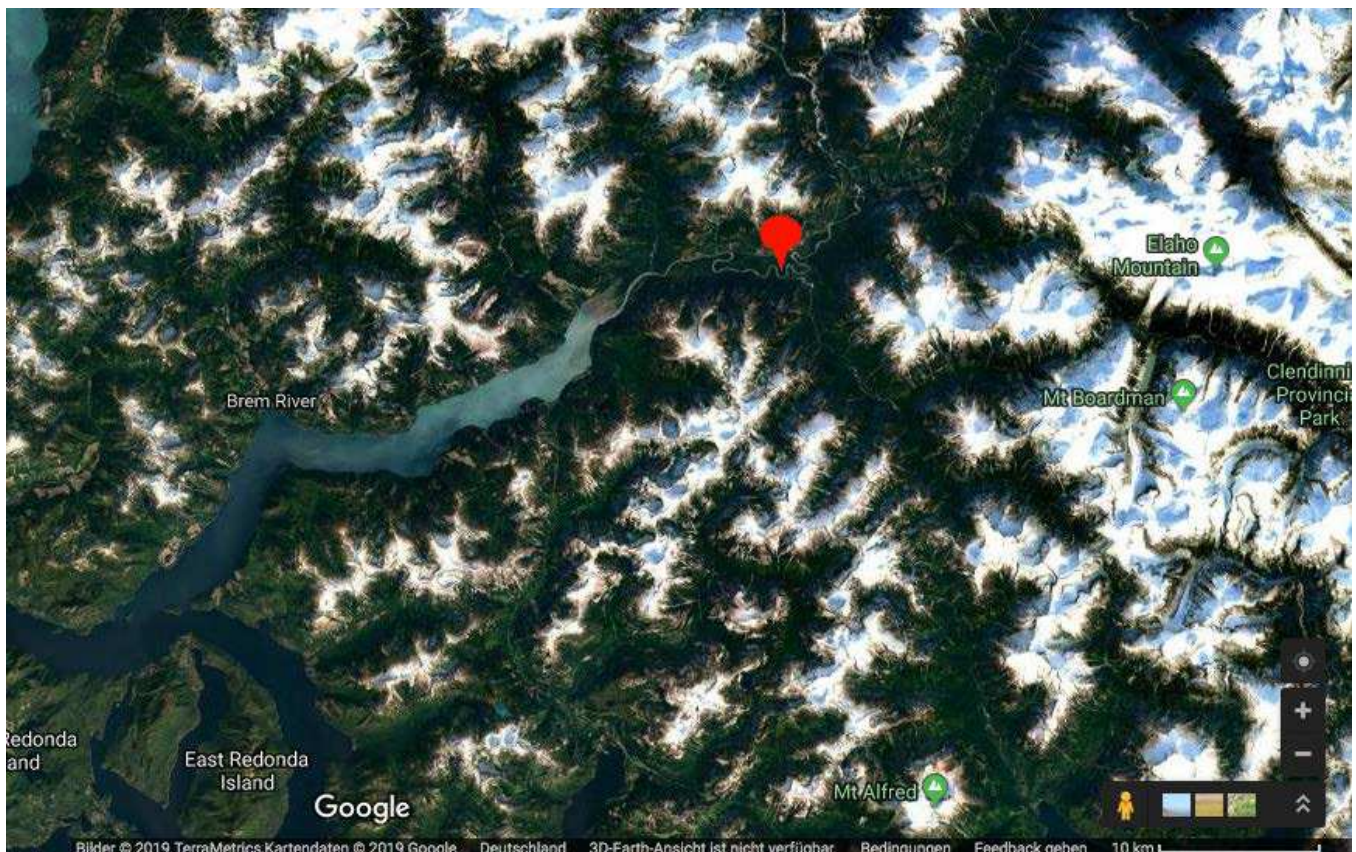
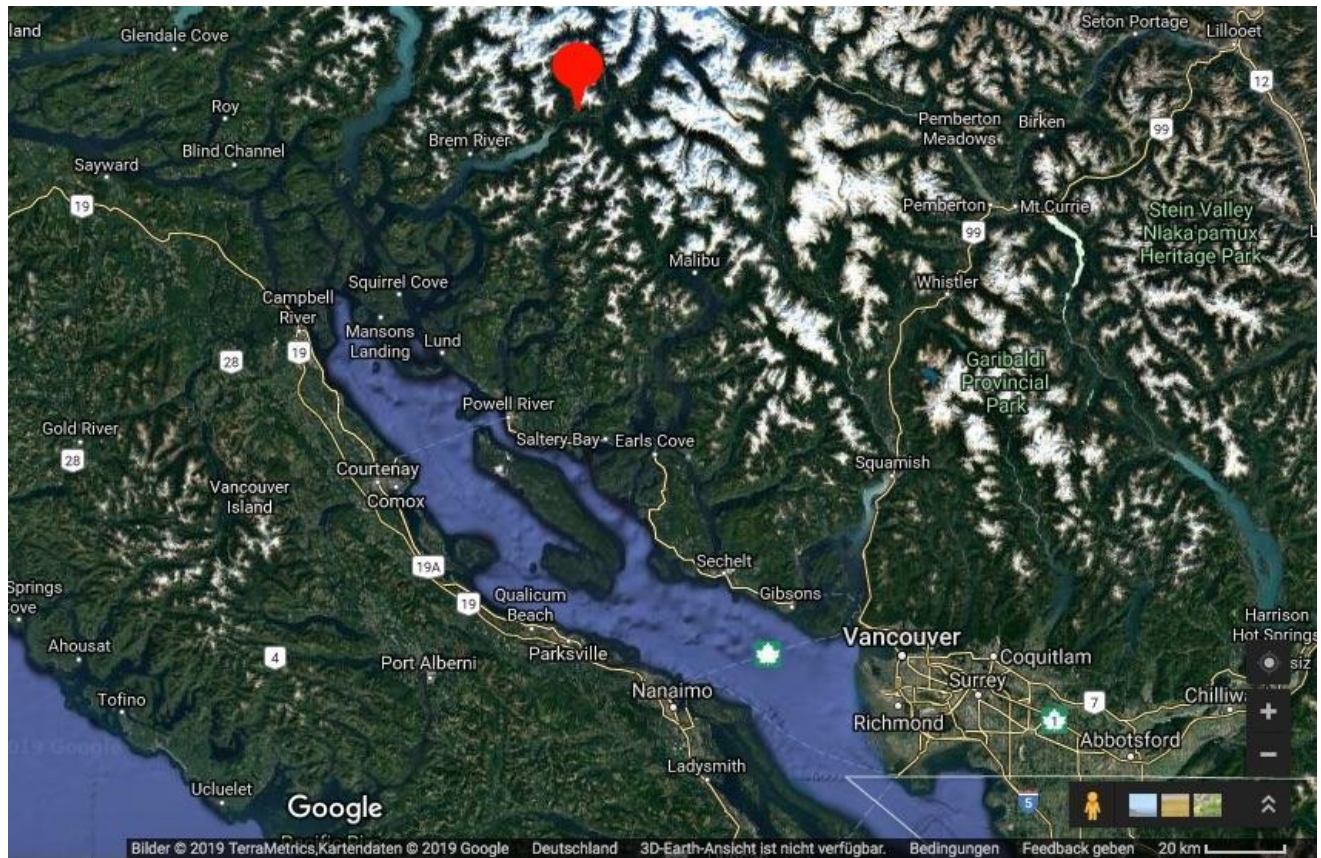
**Ronny Scholz**  
Board of Directors  
Wilderness International

**Stephan Hürten**  
Head of Council  
Wilderness International

**David MacDonald**  
Director  
Wilderness International Canada











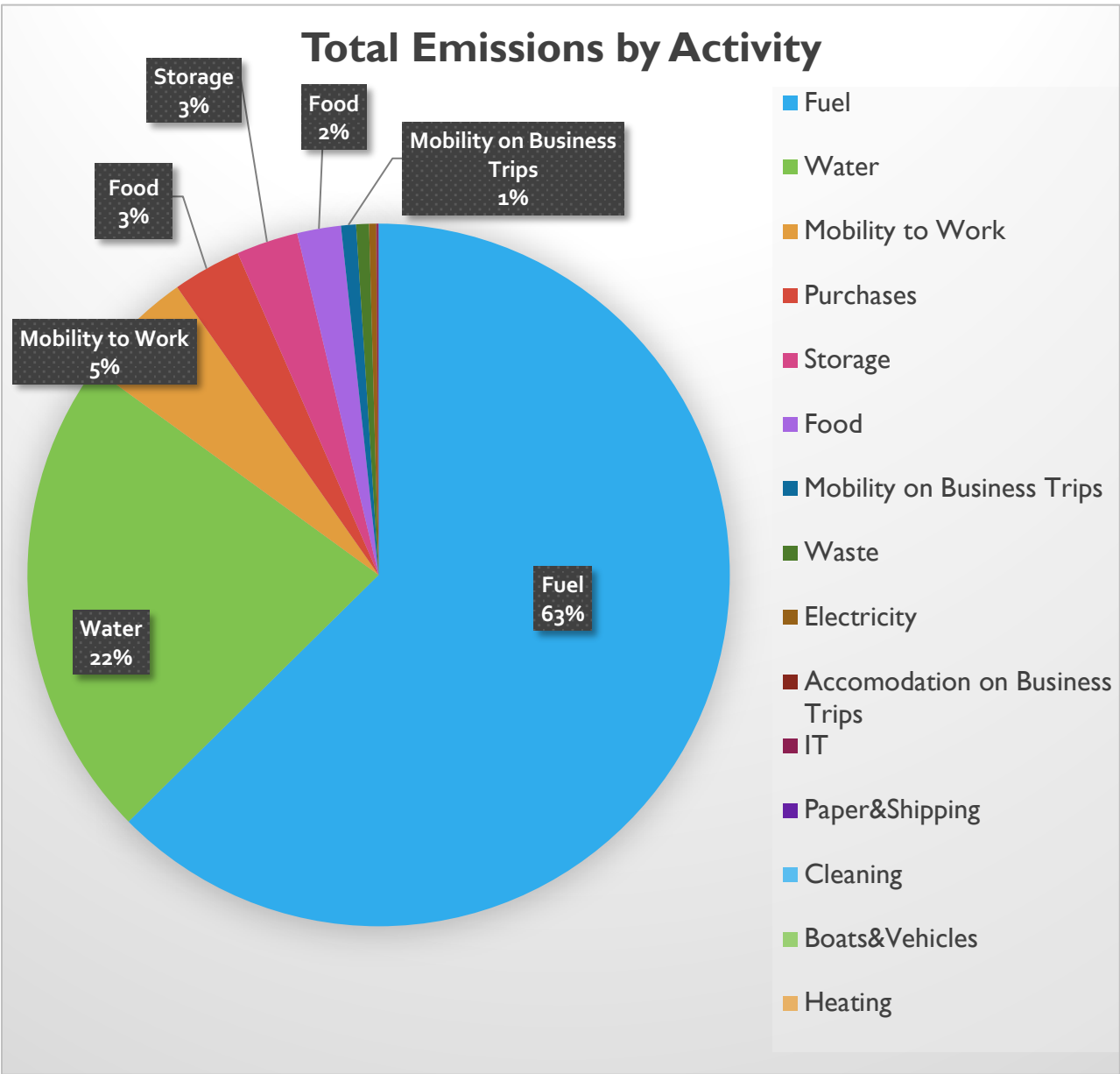


# Carbon Footprint

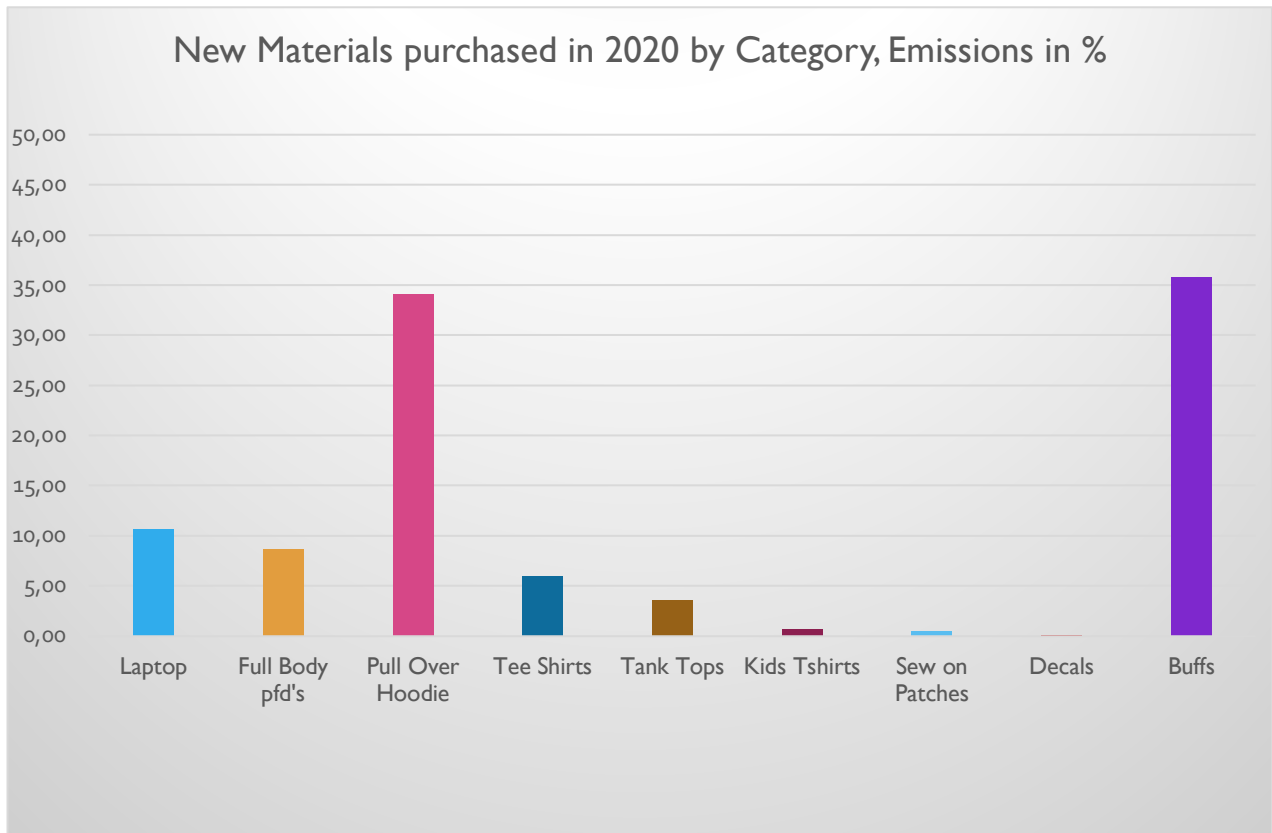
## Summary

Total Emissions	Offset Donation*
150.56 t CO <sub>2</sub> e	3030.00 CAD

\* 1m<sup>2</sup> of forest in the Toba Valley offsets 0.10479t of CO<sub>2</sub>, 1m<sup>2</sup> of forest is protected with 1 CAD. Campbell River Whale Watching donates \$1-\$4 per guest and guests add voluntarily donations. Thereby, the company's carbon footprint was overcompensated in 2020.



## New Materials



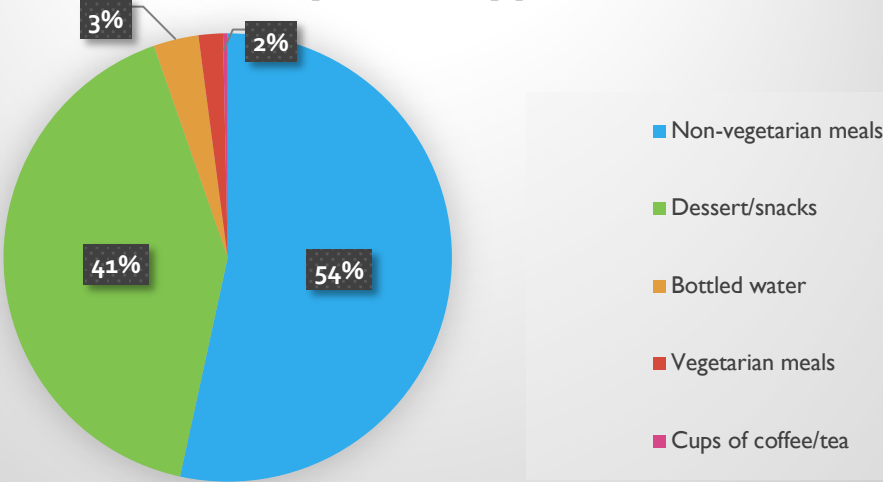
### Analysis

Fabric merchandise accounts for most emissions in this category, as well as the purchase of new technology. While these emissions might be hard to reduce or eliminate, an important focus should be placed on the sustainable and fair production, high quality and long-term use of those products.



## Food (Guests & Staff)

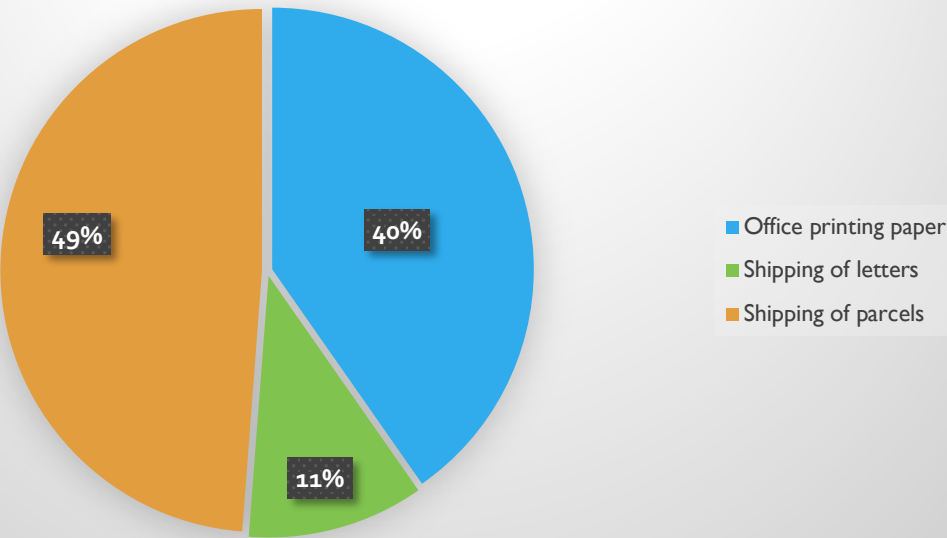
Food by Meal Type



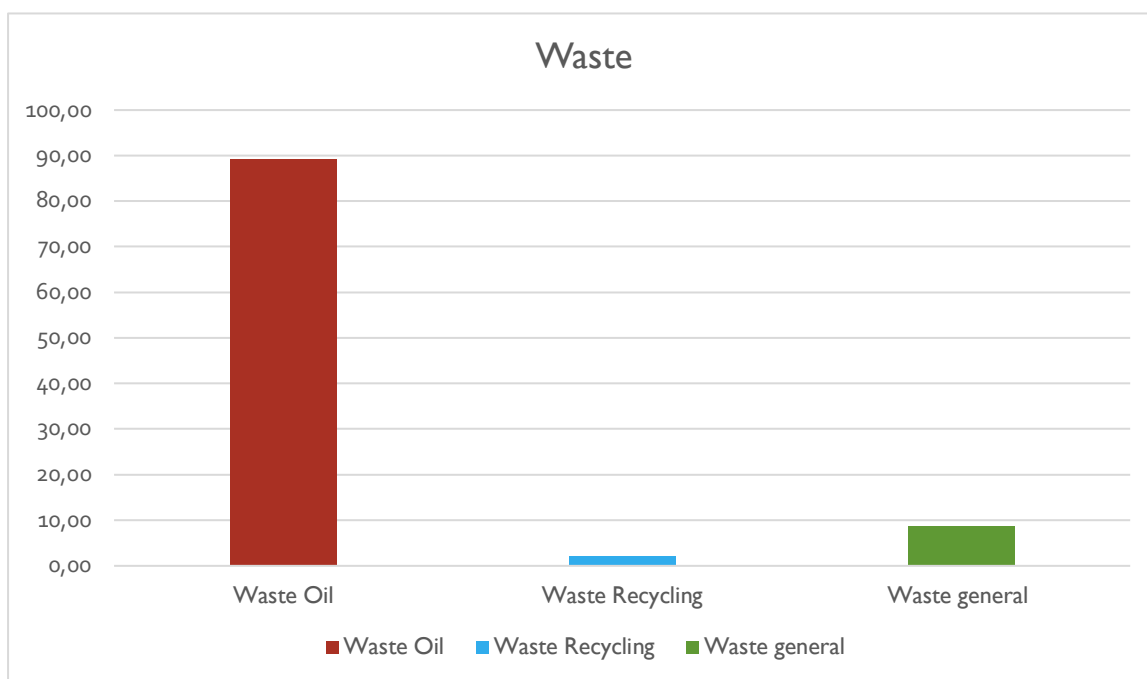
**Disclaimer:** For the purpose of this report, the carbon figures for all meals/food calculations were done assuming standard farming practices. Sustainable and organic farming methods were not incorporated at this time.

## Paper and Shipping

Paper and Shipping by Type

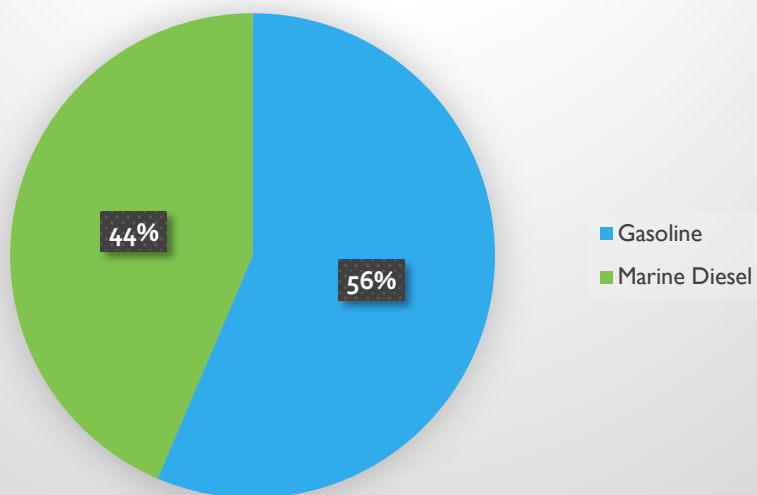


## Waste, Emissions in %



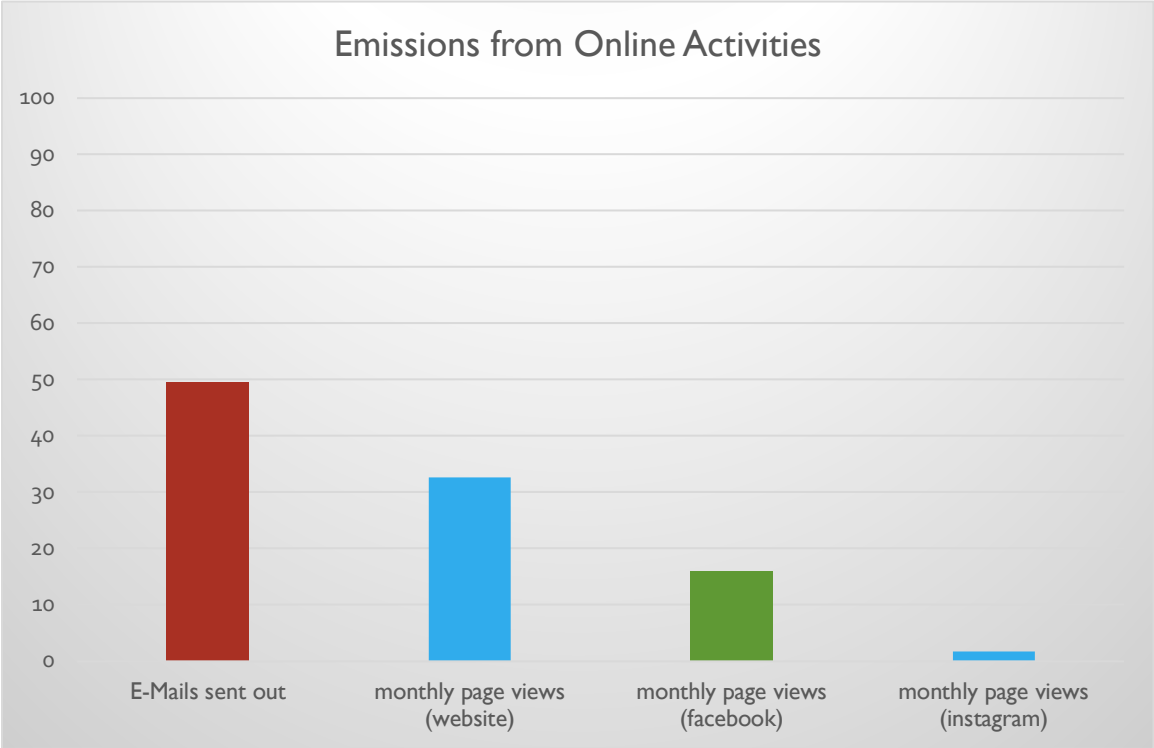
## Fuel

### Fuel Usage by Source, Emissions in %





# IT & Communication



## Analysis

Emails contribute most emissions in this section. Providers need a lot of energy for their servers, so choosing one that uses eco-power makes sense when looking to reduce emissions. Reducing the number and size of attachments also helps to keep storage emissions low. The regular reduction of junk mail and other data frees up storage and reduces emissions from high energy use.

## Carbon Reduction Strategy

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For the fourth year in a row, Campbell River Whale Watching & Adventure Tours continues its great efforts to offset their environmental impact while continuing to manage a profitable business. Campbell River Whale Watching & Adventure Tours is committed to operating as a carbon neutral business, offsetting more than 100% of their carbon footprint each year. The overcompensation through the protection of an area much larger as needed to balance out emissions further marks a generous assumption of responsibility for habitat and biodiversity protection, and therefore sustainability in general, especially in an economically tough year like 2020.

As Campbell River Whale Watching & Adventure Tours is moving towards the reduction of their environmental impact in all business activities, a special focus can be put on saving water and ensuring the sustainable production of their fabric merchandise.

We are going to keep working together to ambitiously increase the amount of protected forest in 2021. As part of this challenge, guests will be incentivized to donate an additional \$2.00 CAD. Moreover, the company will give guests the opportunity to offset the carbon footprint of their entire trip in Canada with Wilderness International.

## New Achievements in 2020

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- Collection of a \$4.00 CAD conservation fee on bear tours helped to protect an extra 956m<sup>2</sup> of rainforest

## Moving Forward

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- Moving clothing orders to a more sustainable organic cotton / bamboo blend.
- Starting a detailed waste audit process to be able to reduce specifically.
- Use of hybrid motors on boats.
- Saving water.
- Relying more on non-emitting means of transportation or carpooling to get to work.
- Switching to reusable water bottles and eliminating plastic water bottles.
- Switching to compostable garbage bags.
- Eliminating single use plastic bags.
- Switching to a local coffee company to purchase coffee for guests on tours.
- Incentivizing guests to voluntarily donate a minimum of \$2.00 CAD or more and to offset emissions of their entire vacation by protecting more forest.

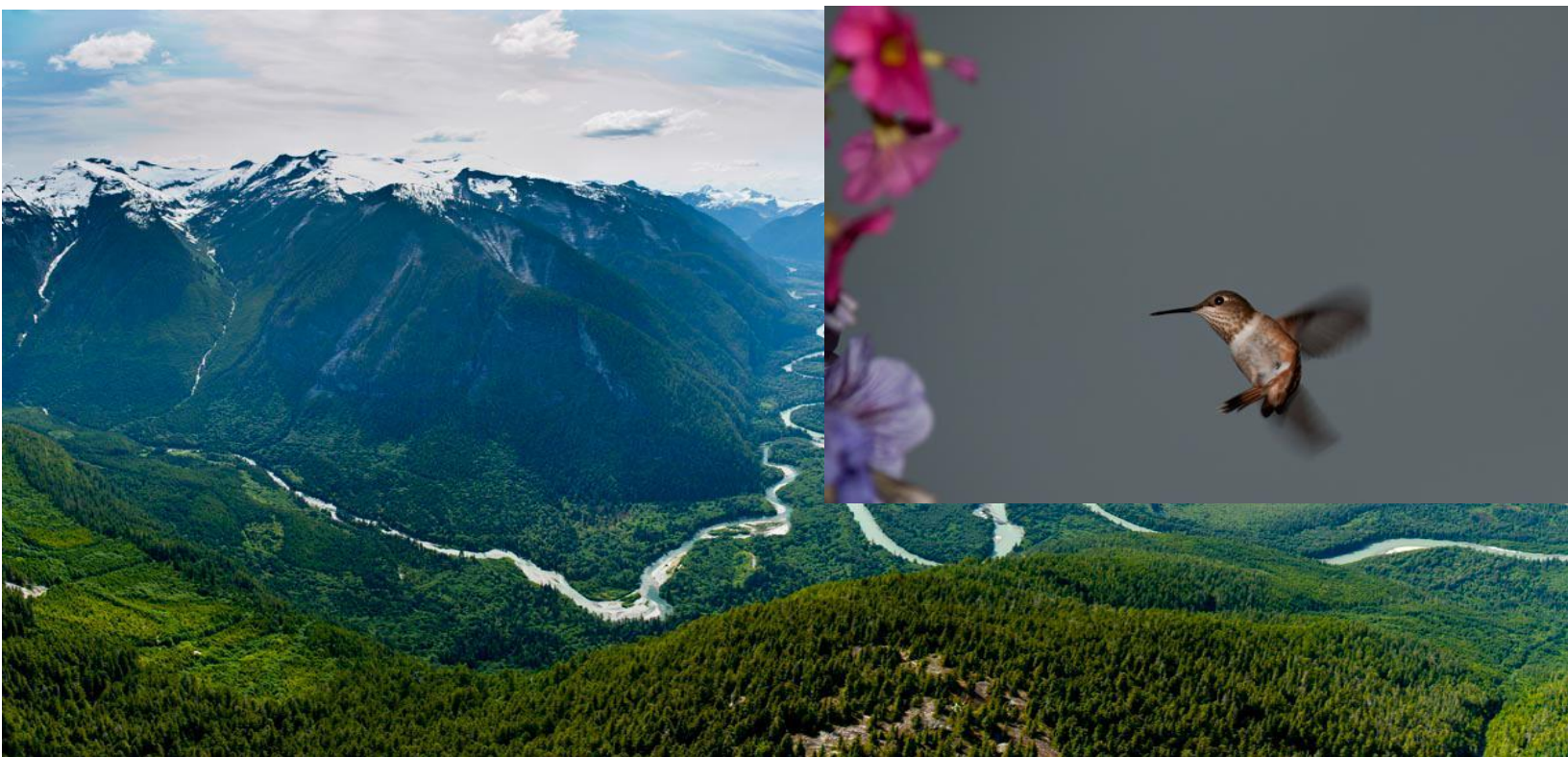


## Offsetting: Wilderness Protection

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*„When you listen to the silence in the rainforest, you learn to distinguish the important from the unimportant. It is important to me now that the children of our children will be able to experience this someday.”*

- Astrid, Environmental Ambassador



Since 2012, Wilderness International has been buying parcels of land in the Toba Valley, in the middle of the Coastal Mountains of western Canada, 160 kilometers north of the city of Vancouver. Thus, they are protected forever! Our vision in the Toba Valley is the creation of a great protected Grizzly bear corridor. It all began with the purchase of the "Land of the Grizzlies", more than 60 hectares in size. Until today, is been followed by the "Land of the Ghost Flowers", the "Land of the Wapitis", and the "Land of the Hummingbirds", now totaling more than 292 ha of pristine wildlife habitat and biodiversity forever protected.



## Getting to Know the Conservation Area – September 2019



*"It is absolutely amazing to be here on this land in the Toba River Valley that we are helping to protect. To see the bears, the eagles, to see all the wildlife around here in this amazing old-growth forest that we're proud to be able to protect for eternity."*

Steve Gabrysh, owner

Our goal: A sand bank in the Land of the Grizzlies. On the way, we stop at a magical tree, a maple which is about 700 years old, and which is covered in moss. "That is tremendous, I didn't think I would ever see anything this impressive," owner Tyler Bruce says, as he cranes his neck to try to find the crown of the tree – which is impossible to see. Under the huge maple tree, we see two entrances to a wolf's den. Then we continue to walk to the sand bank, on a path that is usually only used by animals. We make our way through the thicket of the rainforest, pass scratch marks and resting areas of bears. Once more it becomes clear to us that we are walking through the bears' home, their living room.



## Where Wild Grizzlies Roam

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A healthy Grizzly population still roams the vast wilderness of this valley. Since there is more than enough to eat, a mother can birth 3-4 cubs in one year. The diverse vegetation of the river valleys is on the menu, and in the late summer and early fall the bears can feast on thousands of salmon in order to build up the winter fat so essential for survival. For their six-month winter rest, they use the root caves of ancient giant trees, which can only be formed through undisturbed, natural processes.





*“Standing at the foot of a tree, whose height is not even fathomable, whose circumference is not even attainable with ten people, and whose age is hundreds of times one’s own – only those who have experienced this can really comprehend what it feels like.”*

- Mareike, Environmental Ambassador



## End Notes

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### Glossary

CO <sub>2</sub> Equivalent (CO <sub>2</sub> e)	Green House Gasses have different warming potentials, measured collectively as CO <sub>2</sub> equivalents ("e")
Greenhouse Gas (Emissions)	Atmospheric gasses contributing to the greenhouse effect, including Carbon Dioxide (CO <sub>2</sub> ), Methane (CH <sub>4</sub> ), Nitrous Oxide (N <sub>2</sub> O), etc.
m <sup>3</sup>	Cubic Meter: Unit of measurement equal to 1,000 Litres
PU	Polyurethane
m <sup>2</sup>	Square meters: unit of measurement for areas, 1m <sup>2</sup> equals an area of 1m (side 1) x 1m (side 2)
ha	Hectar: unit of measurement for areas, 1 ha equals an area of 10 000 m <sup>2</sup>

### Calculation Procedure

To calculate the ecological footprint, so-called emission factors are used. They are based on consumption data such as energy consumption or kilometers driven by car, the amount of emitted carbon dioxide can be calculated. Added to that, the emission factor takes into account all other greenhouse gases that are emitted with certain activities.

Methane for example has an effect on our climate that is 25 times stronger than that of CO<sub>2</sub>. Therefore, for every kilogram of methane emitted, 25kg of CO<sub>2</sub> equivalents are factored in.

### Uncertain Information

To calculate the emission of boat production, roughly 2 times the emission factor of cars was assumed.

To calculate the emission of whole-body PFDs, 5 times the emission factor of regular PFDs was assumed. Regular PFDs were calculated as weighing 650g and consisting of 470g PU soft foam and 180g Nylon.

For Servers, emissions during production are factored in.

For toilet paper, raw material extraction, production, distribution and drive to purchase of consumer as well as disposal were factored in at 10 rolls, 3-layered, fresh fiber, 1.35kg.



## Sources

Pendos Encyclopedia for CO<sub>2</sub>-Emissions:

Andreas Grabolle and Tanja Loitz. Pendos CO<sub>2</sub>-Zähler. Pendo, 2007.

Federal Environment Agency on Energy 2016

<https://www.umweltbundesamt.de/themen/klima-energie/energieversorgung/strom-waermeversorgung-in-zahlen#Strommix>

Society for Environmental Education Bremen

[http://www.umweltbildung-bremen.de/uploads/ff\\_thema4\\_lf6.pdf](http://www.umweltbildung-bremen.de/uploads/ff_thema4_lf6.pdf)

CO<sub>2</sub> List

<Http://www.co2list.org/files/carbon.htm>

VAUDE Sustainability Report

<http://nachhaltigkeitsbericht.vaude.com/gri-wAssets/pdf/de/Dokumente-2017-fuer-2016/VAUDE-Klimabilanz-2016.pdf>

University of Flensburg Research

<https://www.uni-flensburg.de/fileadmin/content/abteilungen/industrial/dokumente/downloads/veroeffentlichungen/forschungsergebnisse/klimaschutzkonzept-nordkirche.pdf>

Study for the Certification of Companies according to the „Stop Climate Change“ Standard in Göttingen

[https://www.stadtwerke-goettingen.de/fileadmin/user\\_upload/THG-Folgestudie\\_Stadtwerke\\_2018.final.pdf](https://www.stadtwerke-goettingen.de/fileadmin/user_upload/THG-Folgestudie_Stadtwerke_2018.final.pdf)

MyClimate Emissions Calculator

[https://co2.myclimate.org/de/offset\\_further\\_emissions](https://co2.myclimate.org/de/offset_further_emissions)

Apple: Product Environmental Reports

<https://www.apple.com/environment/reports/>

Institute for Applied Ecology: Study on Life Cycle Emissions 2011

[http://iinas.org/tl\\_files/iinas/downloads/GEMIS/2011\\_GEMIS\\_Daten-FESt.pdf](http://iinas.org/tl_files/iinas/downloads/GEMIS/2011_GEMIS_Daten-FESt.pdf)

Government of the United Kingdom and Northern Ireland Greenhouse Gas Reporting- Conversion Factors 2016

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2016>

And others.



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Wilderness International 2020

[www.wilderness-international.org](http://www.wilderness-international.org)

<https://www.facebook.com/wildernessinternational>



