

## Conflict of Interest

The author has declared no conflict of interest.



Susanne Doettling/MSF

# **The Environmental Impact Toolkit: Futureproofing MSF through measurement & mitigation**

MSF Scientific Days – Innovation Day  
20 May 2021

Presenting: Sandra Smiley & Carol Devine

# Introduction: Context

Humans are changing the planet, leading to



**Increased global  
temperatures**



**Air pollution**



**More frequent & severe  
weather events**

# Introduction: Context

Humans are changing the planet, leading to



Increased global temperatures



Air pollution



More frequent & severe weather events

This has profound negative health consequences, including



Exacerbating infectious disease transmission



Water & food insecurity



Displacement

# Introduction: Context



Richard Malikonge/MSF

# Introduction: Context



Richard Malikonge/MSF



MSF Spain

# Introduction: Context



Richard Malikonge/MSF



MSF Spain



Owen Breuil/MSF

# Introduction: Context

**MSF recognises the humanitarian & health consequences of climate change & environmental degradation**



Tetiana Gaviuk/MSF

# Introduction: Context

**MSF recognises the humanitarian & health consequences of climate change & environmental degradation**

**& has committed to significantly mitigating its environmental impacts by 2023**





# Introduction: The Environmental Impact (EI) Toolkit

**First-of-its-kind initiative within MSF**

**Allows offices & projects to assess their carbon emissions & waste production, & decide on mitigation measures**

**Adapted & customised to measure common carbon emissions & waste**



Diana Zeyneb Alhindawi./MSF

# Introduction: The Environmental Impact (EI) Toolkit

Carbon Emissions Footprint 2.7 FINAL PHASE 2 Nov 25 - Excel

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do

Normal Page Break Preview Page Layout Custom Views Workbook Views


Ruler Formula Bar Gridlines Headings Show

Zoom 100% Zoom to Selection

New Window Arrange All Freeze Panes Unhide Window

Split View Side by Side Synchronous Scrolling Reset Window Position Switch Windows Macros

D32 Invoices from public utilities generally include the kiloWatt-hours (kWh) consumed. Ask your utility to provide the carbon intensity [kgCO<sub>2</sub>e/kWh] of their electricity

**ENVIRONMENTAL IMPACT TOOLKIT** **Carbon Emissions Footprinting**  **TRANSFORMATIONAL INVESTMENT CAPACITY**

**Step-by-Step Instructions To Guide Your Reporting**

- 1 Review the toolkit [the sheets in this excel book] to get familiar with how it works
- 2 Collect your electricity data from your utility bills and/or consumption records for fuel used in generators
- 3 Collect your consumption records for fuel used in your vehicles
- 4 Collect your business travel data from your travel agent[s] and/or your own records
- 5 Collect freight shipment data: how much did you bring (by weight), from how far, and did you use trucks, ships, or airplanes
- 6 Consider developing an employee commuter-survey [or using the one created by MSF Canada]
- 7 Determine if there are other sources (like paper usage) that you would like to include in your evaluation
- 8 Review and organize all your data so you're ready to input
- 9 Review the 'Conversion Factors' tab to input the emissions/kWh for your electricity use [ask your utility

Read Me **How-to & FAQ** Enter Data Here Your Results Your Charts Conversion Factors

Ready 100%

# Methods: Objectives

- **To help systematise efforts to reduce MSF’s environmental footprint: “what you measure, you can manage”**
- **To allow MSF to establish a baseline level of carbon emissions & waste production & facilitate target-setting for mitigation**
- **To future-proof the organisation, making it a more responsive & responsible humanitarian actor**

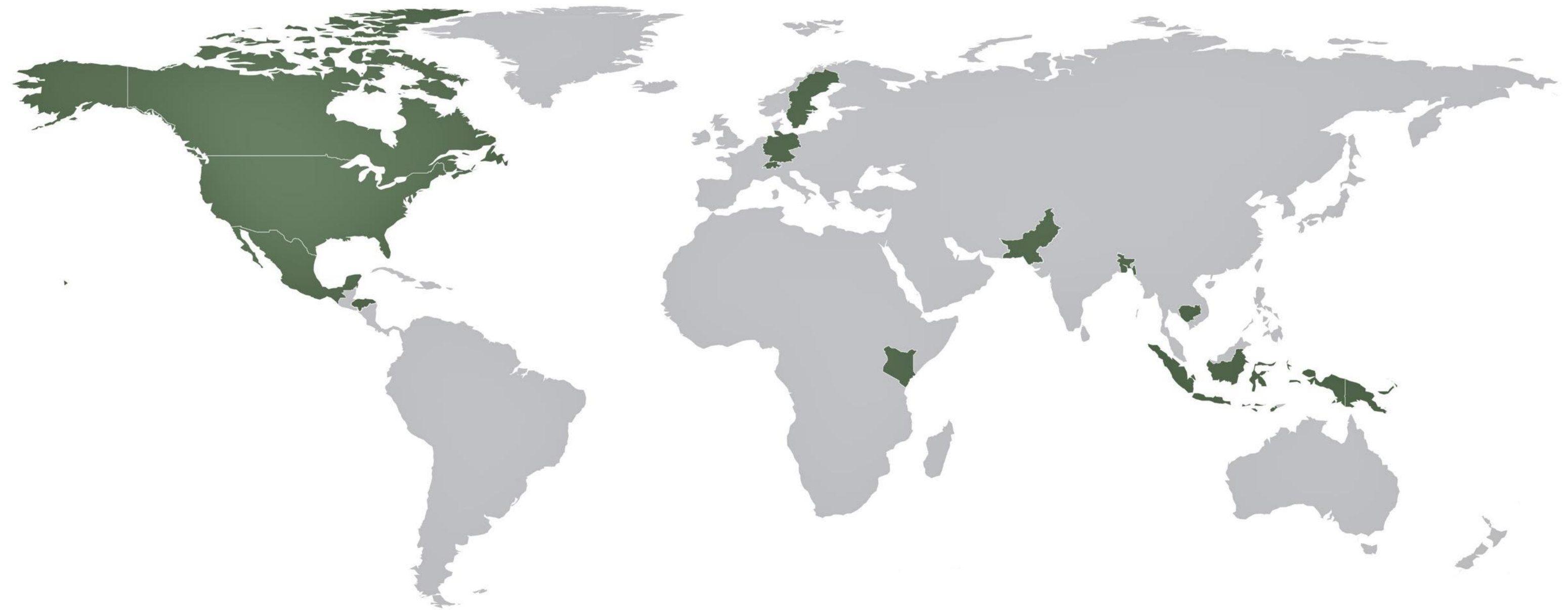
# Methods: Implementation

- Toolkit developed & piloted in five countries in 2019



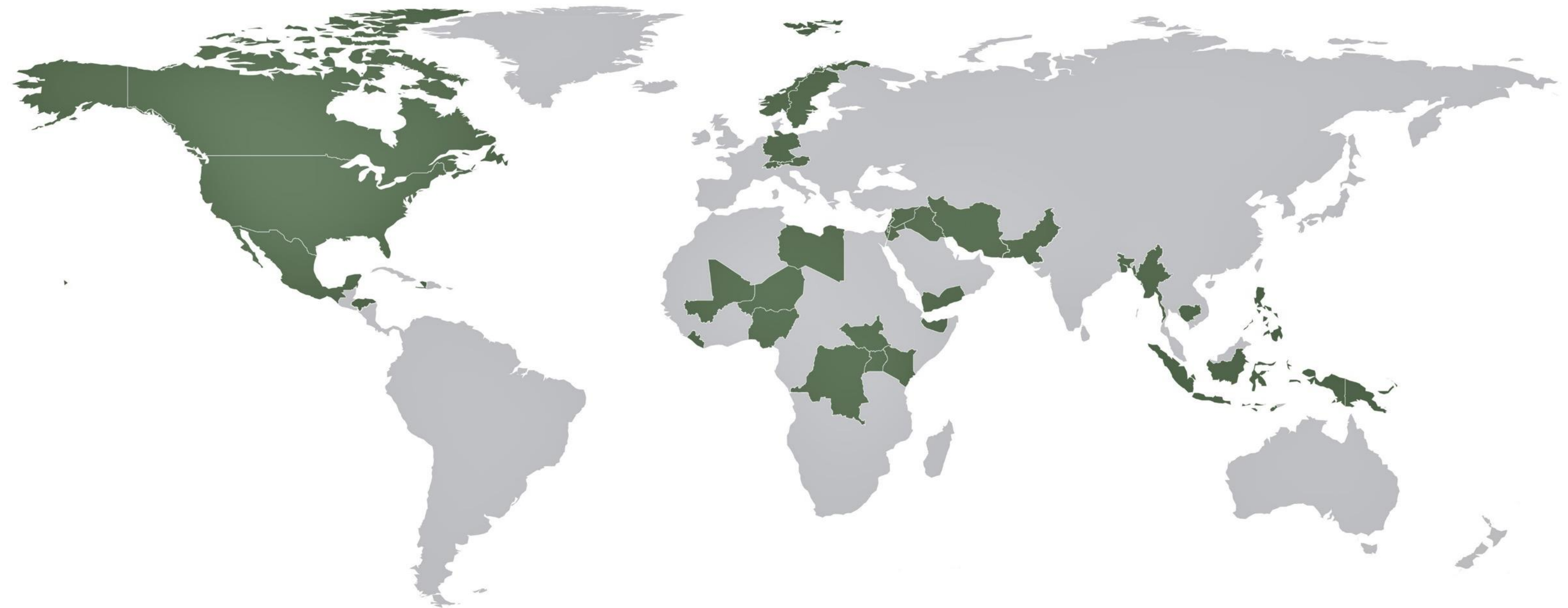
# Methods: Implementation

- Toolkit developed & piloted in five countries in 2019
- In 2020, rolled out in nine more sites & updated

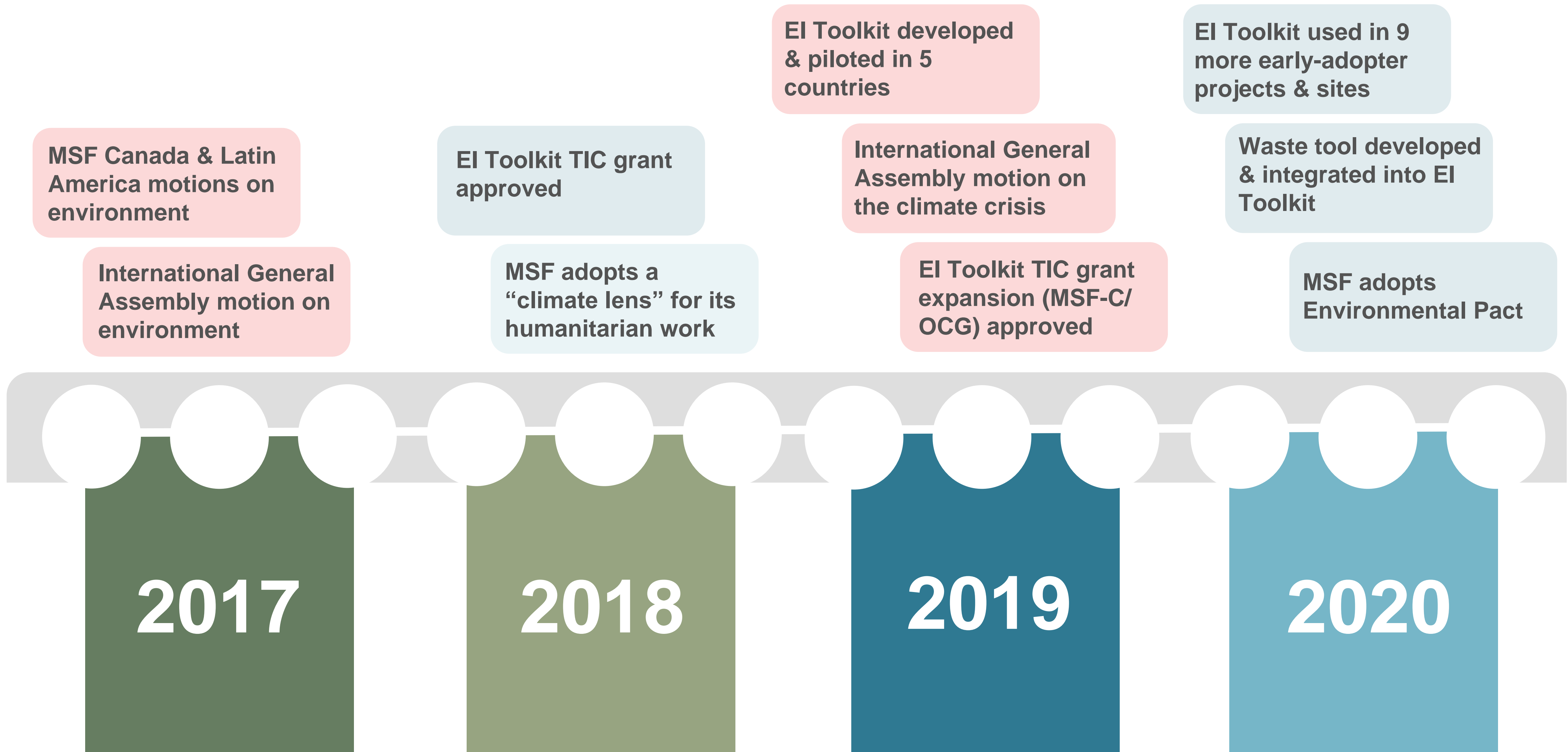


# Methods: Implementation

- Toolkit developed & piloted in five countries in 2019
- In 2020, rolled out in nine more sites & updated
- In 2021, 22 new uses, ~20 more anticipated



# Methods: Timeline



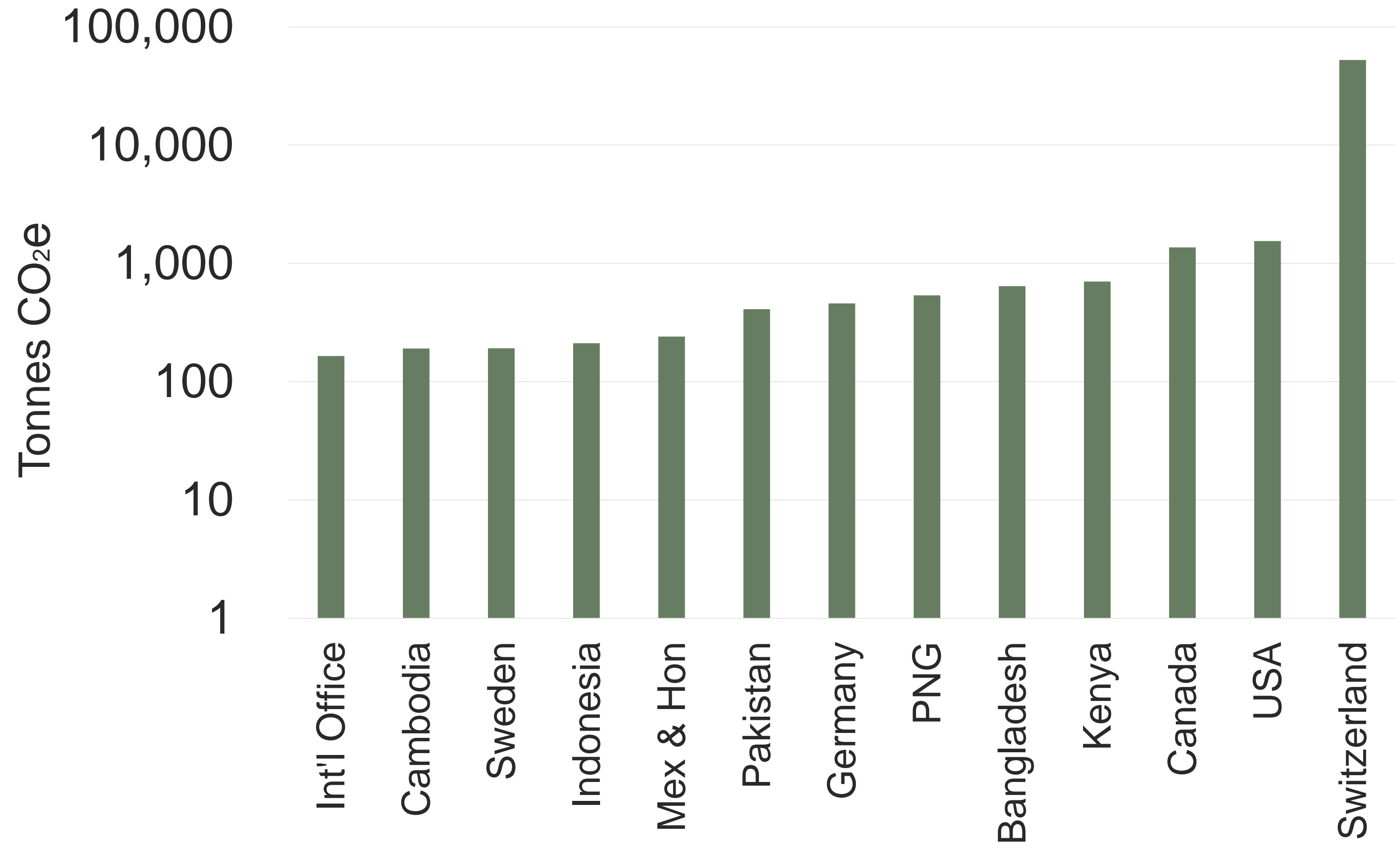
# Methods: Data collection & analysis

- **Data & testimonies on emissions-producing activities & user feedback collected**
- **Guidance on mitigation measures offered by Climate Smart MSF experts**
- **Emissions & their sources, & mitigation measures, compared across MSF sites**



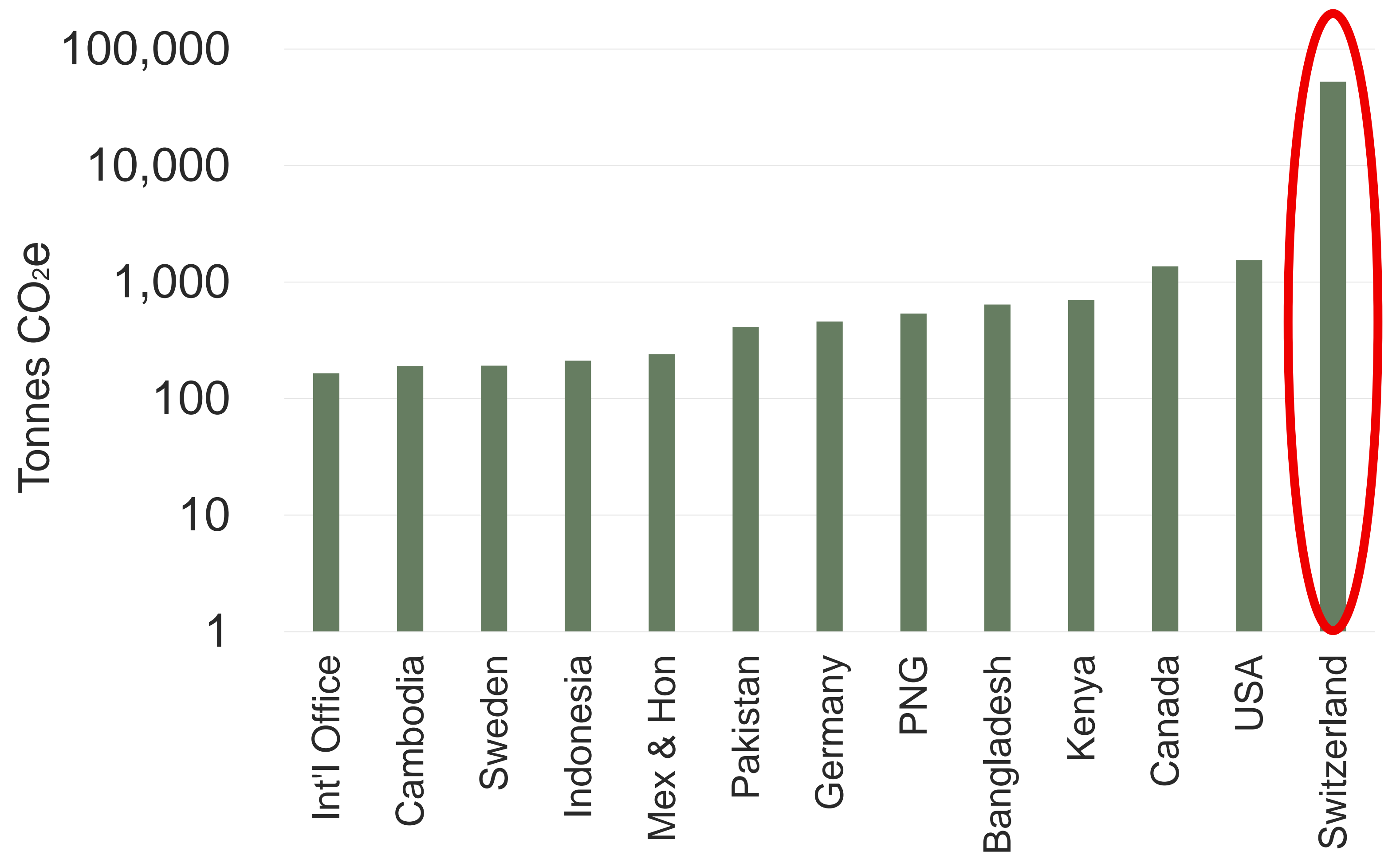
# Results

Emissions levels varied significantly across the 14 sites



# Results

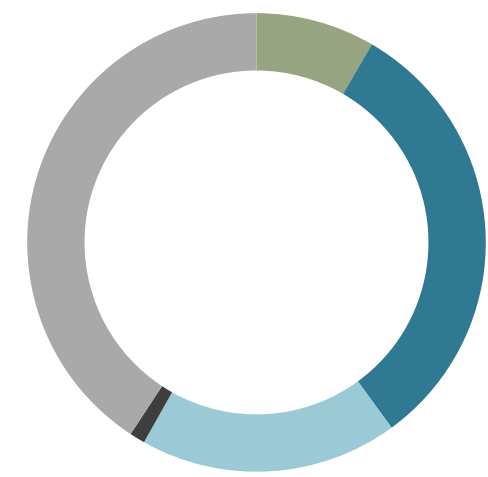
Emissions levels varied significantly across the 14 sites



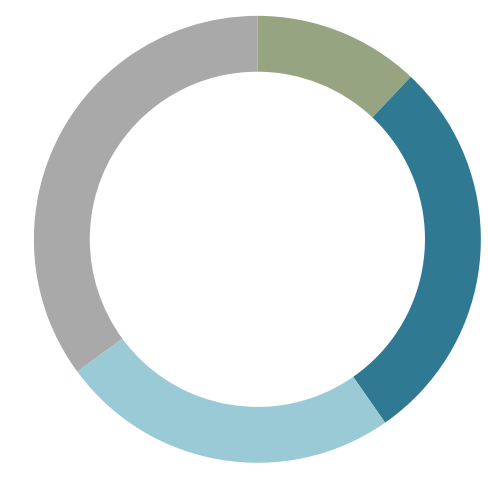
# Results

Sources of emissions varied considerably across sites

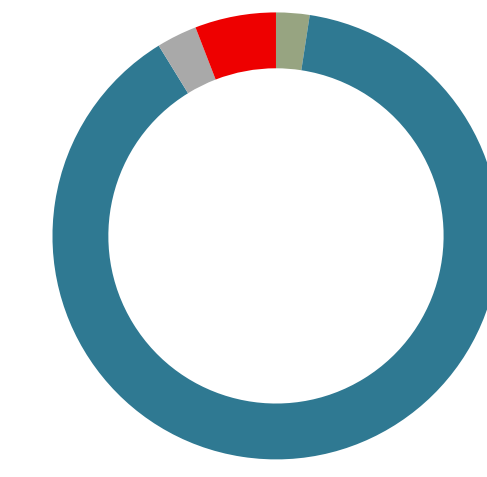
Air freight & air travel (personnel flights) were identified as major sources of emissions



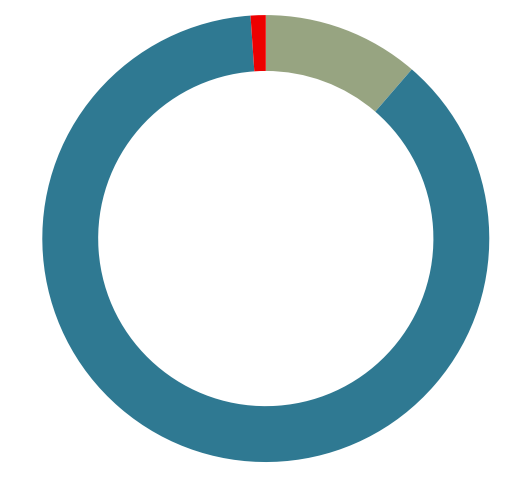
Bangladesh



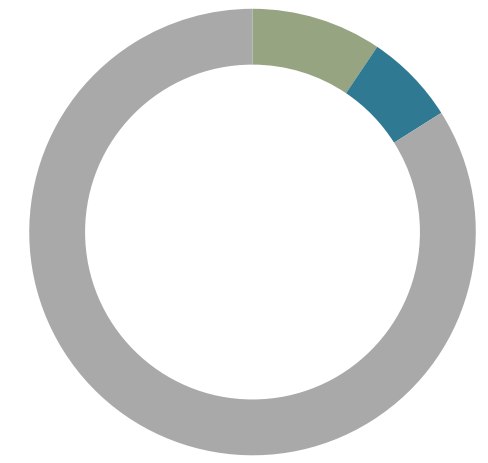
Cambodia



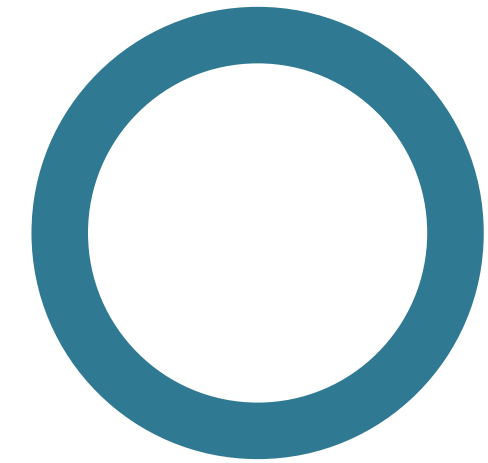
Canada



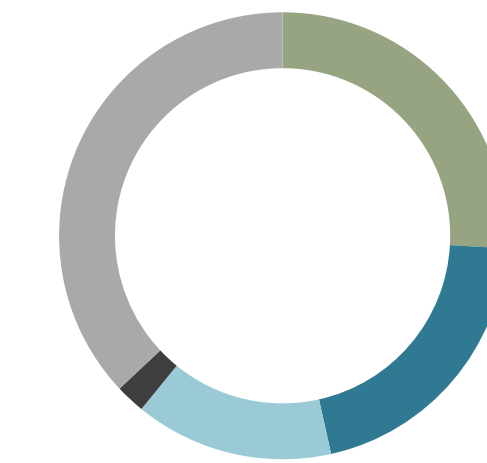
Germany



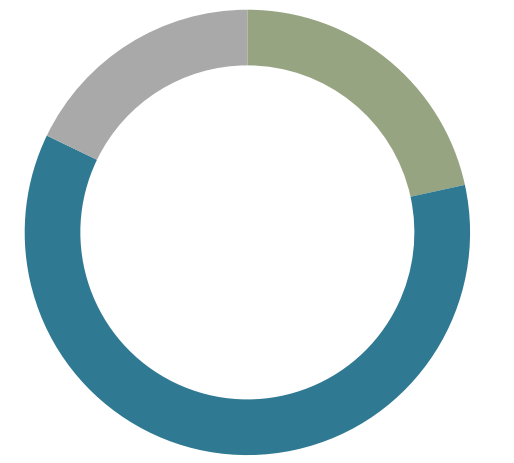
Indonesia



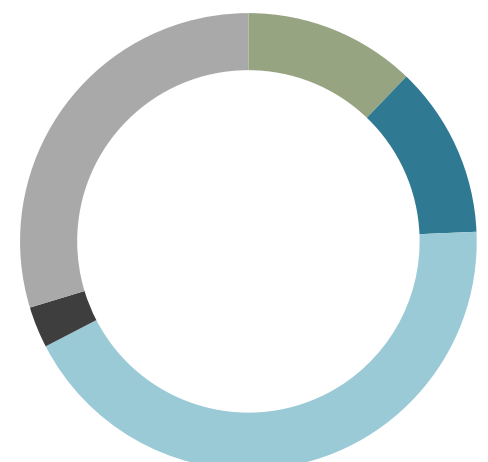
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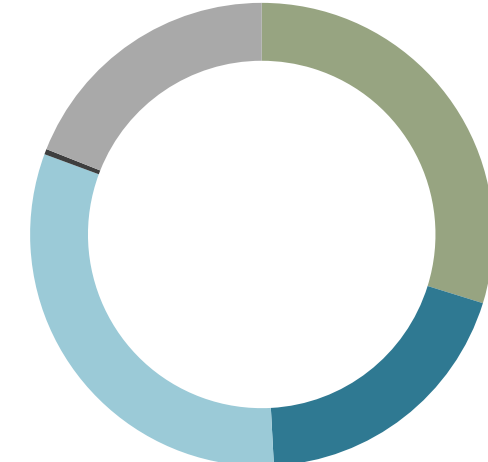
Kenya



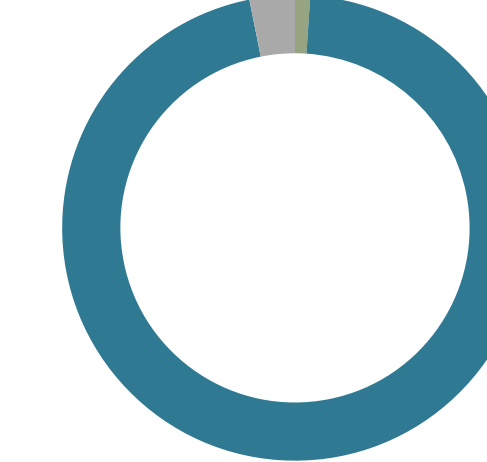
Mexico & Honduras



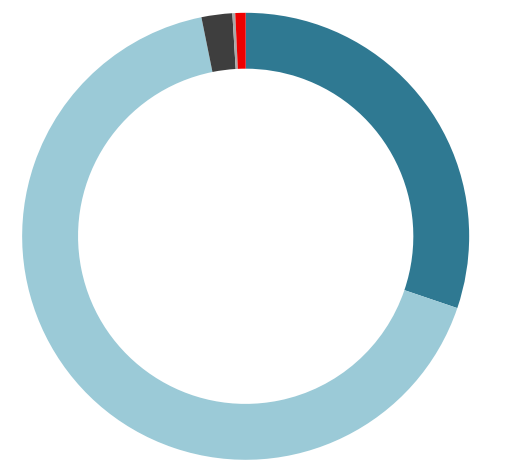
Pakistan



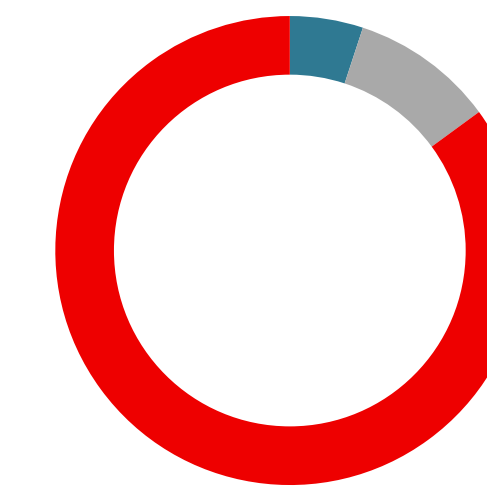
PNG



Sweden



Switzerland



USA

- Transportation: Land
- Transportation: Air
- Freight: Air
- Freight: Other
- Electricity
- Other

# Results

**Commonalities in mitigation opportunities were identified, including:**

- **limiting non-essential travel**
- **finding lower-carbon substitutes to air freight & diesel use**
- **scaling up solar energy, connecting to grid power & monitoring electricity use**



# Results

*“Of our strategic pillars in 2021, environmental footprint will be one of them. 18 months ago, this wouldn't have happened, but the board is behind us too, behind & in front keeping us accountable.”*

Katja Carson, MSF Germany, on the passage of MSF Germany's motion urging all of MSF to measure its footprint using the EI Toolkit.

**Tool users indicated that:**

- **Leadership/management & human/financial resources is key to transition to sustainable tech (eg. solar)**
- **Automated/systematised internal processes could save time & make measuring emissions & waste production easier**

# Results

**Brought about discussions & action on shifting to more sustainable processes, eg.**

- **Bangladesh: connecting to grid power, metering**
- **Canada: set target to reduce non-essential flights**

**Practice changes like limiting paper use & digitise processes**



# Discussion & Conclusions

- **Measurement crucial to reduction of MSF's carbon emissions & waste: “what you measure, you can manage”**
- **There is considerable scope to make MSF more efficient & environmentally responsible by reducing its carbon footprint**
- **Priority interventions include rationalising the use of emergency air freight, reducing non-essential travel & clean energy transition**
- **Courageous leadership & behavioural change will be important to making environmentally responsible practices “business as usual”**

# Discussion & Conclusions: Limitations

- **Conversion factors were used to estimate CO<sub>2</sub>e – approximations**
- **Some data acquisition challenges**
- **EI Toolkit requires project/office commitment for use**
- **Initial tool is to spur internal action, & not for external reporting or institutional benchmarking**



# Discussion & Conclusions: Next steps

**Building off the knowledge created through the Toolkit:**

- **Review & automate tool to aid in setting science-based targets**
- **Facilitate proof-of-concept & scale-up of energy transition pilots**
- **Work with leaders to rationalise air freight & make supply chain more sustainable**



# Acknowledgements

**In no particular order, a huge thank you to:**

- **Teams & colleagues in all 14 pilot & early adopter sites**
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- **Joe Belliveau, MSF Canada**
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- **Transformational Investment Capacity Secretariat**