

NRC emissions 2019 - baseline report

NRC



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Cover photo: Photo: Iban Colón/NORCAP

Diesel generator installed in a local business in Mankien, South Sudan. These generators are noisy, polluting and expensive, but they are often the only source of energy in remote areas of South Sudan.



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1 Background

The baseline exercise and this document are products of the Greening the Orange¹ project, which is tasked to develop the climate and environment strategy for NRC. This means turning NRC's ambition to make a positive environmental impact, and pledge to become carbon neutral, into a reality. With the support of the [Grieg foundation](#) this project aims to set NRC on a path towards becoming a more environmentally sustainable organisation.

As the first step in the work towards becoming carbon neutral, NRC conducted a baseline of the main sources of emissions from our operations in 2019². The data collection and analysis were performed by KPMG Pure Sustainability on behalf of NRC for the reporting period of January to December 2019. This was the first attempt at estimating our carbon footprint by gathering a full overview of climate related data from NRC's offices around the world.

This baseline exercise helps NRC identify where changes are necessary to reduce the environmental footprint of our operations. However, it is important to note that this report does not explain or propose the way forward for NRC to reduce its emissions or make other improvements based on these findings. Strategic directions will be developed and explained in the global strategy and in the Climate and Environment strategy.

1.1 Scope

Information was gathered from 26 Country Offices, 3 Regional Offices and 5 Representation Offices including the Head Office. The baseline

¹ "Orange" in the term Greening the Orange refers to the colour of NRC's company logo

² Due to a significant reduction in for instance the number of international flights in 2020 due to the pandemic, 2019 was chosen as a more representative year.

includes data from each scope of the Greenhouse Gas Protocol,³ but was limited to NRC’s operations. This means that it is limited to include direct and indirect emissions related to the movement and activities of NRC’s own staff. Emissions related to displacement affected people, programmes and supply chain are not included.

Scope 1 - Direct Emissions	Scope 2 - Indirect Emissions	Scope 3 - All Other Indirect Emissions
Diesel, natural gas, petrol and owned and leased vehicles	Purchased electricity	Bus, domestic, European and international flights, rented vehicles and taxi

1.2 Data Gathering Method

All NRC offices filled in a standardised Excel spreadsheet. The data from each location was gathered in a calculation spreadsheet and aggregated. In addition to data gathered from NRC’s offices, consumption data for flights ordered through the travel agency was provided by NRC’s global travel agent, and consumption data on the use of vehicles was collected from the internal reporting system Deliver, managed by NRC’s Global Logistics Department. Budget data to support the interpretation of emission data was collected through NRC’s Finance Department.

1.3 CO2e calculation Method

The calculation of CO2e emissions for NRC’s operations was based on the retrieved consumption data from each location and follows the guidance from the Greenhouse Gas Protocol. A standard emission factor was used for each emission source to calculate emissions. These factors are based on publicly available data, mainly from DEFRA, as well as a few local factors. Standardised emission factors were utilised,

³ For more information: <https://compareyourfootprint.com/difference-scope-1-2-3-emissions/>

knowing that these do not accurately reflect the varying energy mix and emissions from the given grids or energy providers.

1.4 Limitations

The baseline for 2019 has some limitations regarding data availability, quality and collection. The following challenges are viewed as the major limitations of the baseline reporting:

- The scope of the baseline was limited, and it is therefore only partially representative of NRC's carbon footprint.
- The baseline only contained very limited information about waste management due to a lack of data from most countries.
- Some locations struggled to retrieve data on electricity and heating from landowners and building managers from which they rent office space, and flights booked locally or individually (not using NRC's global travel agency) were not fully reported for all locations. This caused certain data shortages.
- The risk of errors is high due to the manual process of entering data into the individual baseline documents. The quality check provided by the project group was limited to an overall check of the provided baseline documentation, and did not, in most cases, include any review of the underlying data. The collection and compilation of all data for the baseline was also performed manually, which increases the risk of human errors. This may lead to errors in calculated consumption or CO₂e emissions.

2 Results

The following data representations have been adapted to this report format based on the data analysis and visualisations initially prepared by KPMG.

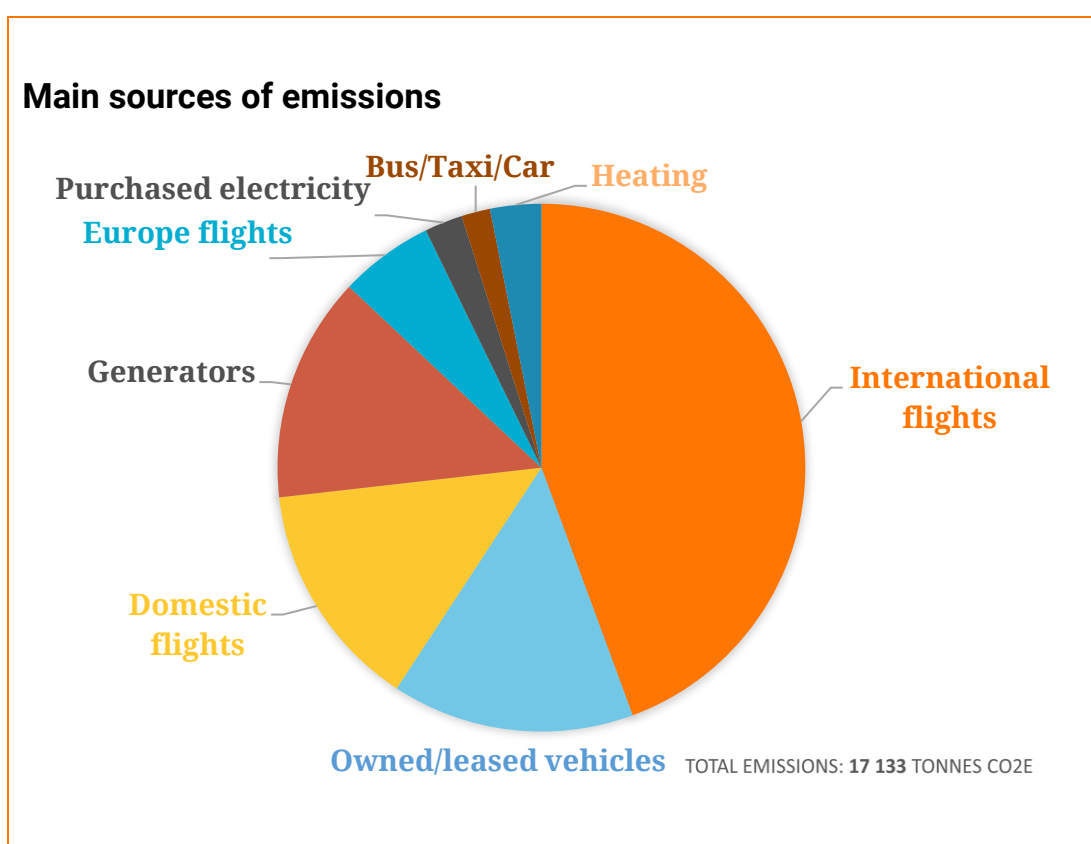
2.1 Sources of emission

The table shows all categories for which data collection was attempted, while the pie chart visualises our main sources of emissions where some of the categories have been merged.

Source	CO2e
International flights	7,601.7
Owned/leased vehicles	2,544.6
Diesel	2,491.5
Domestic flights	2,337.4
Europe flights	988.7
Natural gas	401.3
Purchased electricity	398.0
Bus	147.2
Taxi	143.9
Domestic flights, long distance	54.7
Rented vehicles	11.1
Petrol	8.1
Wood	3.6
District heating	0.4
General waste - to combustion	0.3

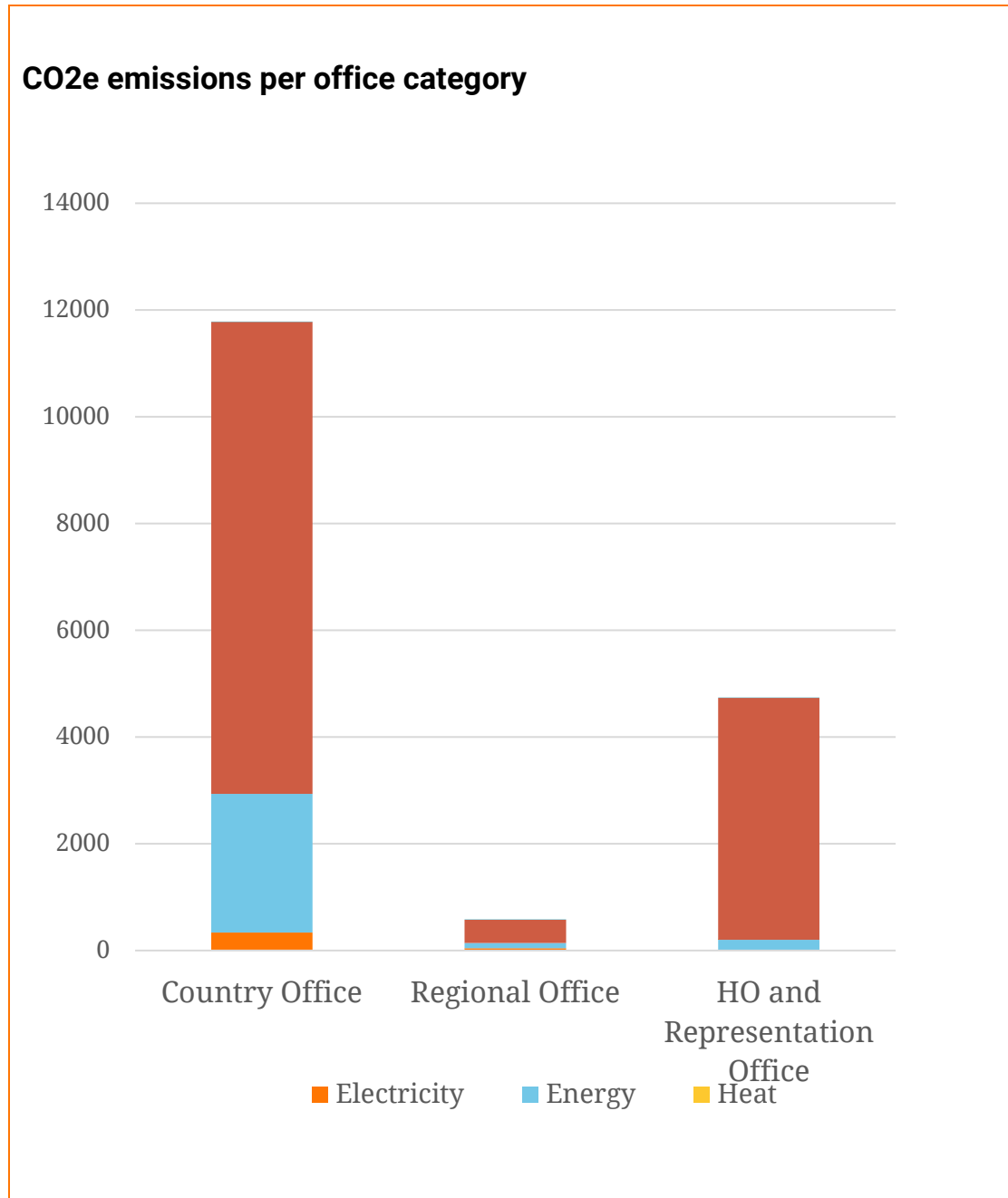
Paper/Cardboard	0.1
Electronic Waste	0.0
Plastic	0.0
Glass	0.0
Metal	0.0
Produced and consumed Solar	0.0

Table 1. Sources of emissions.



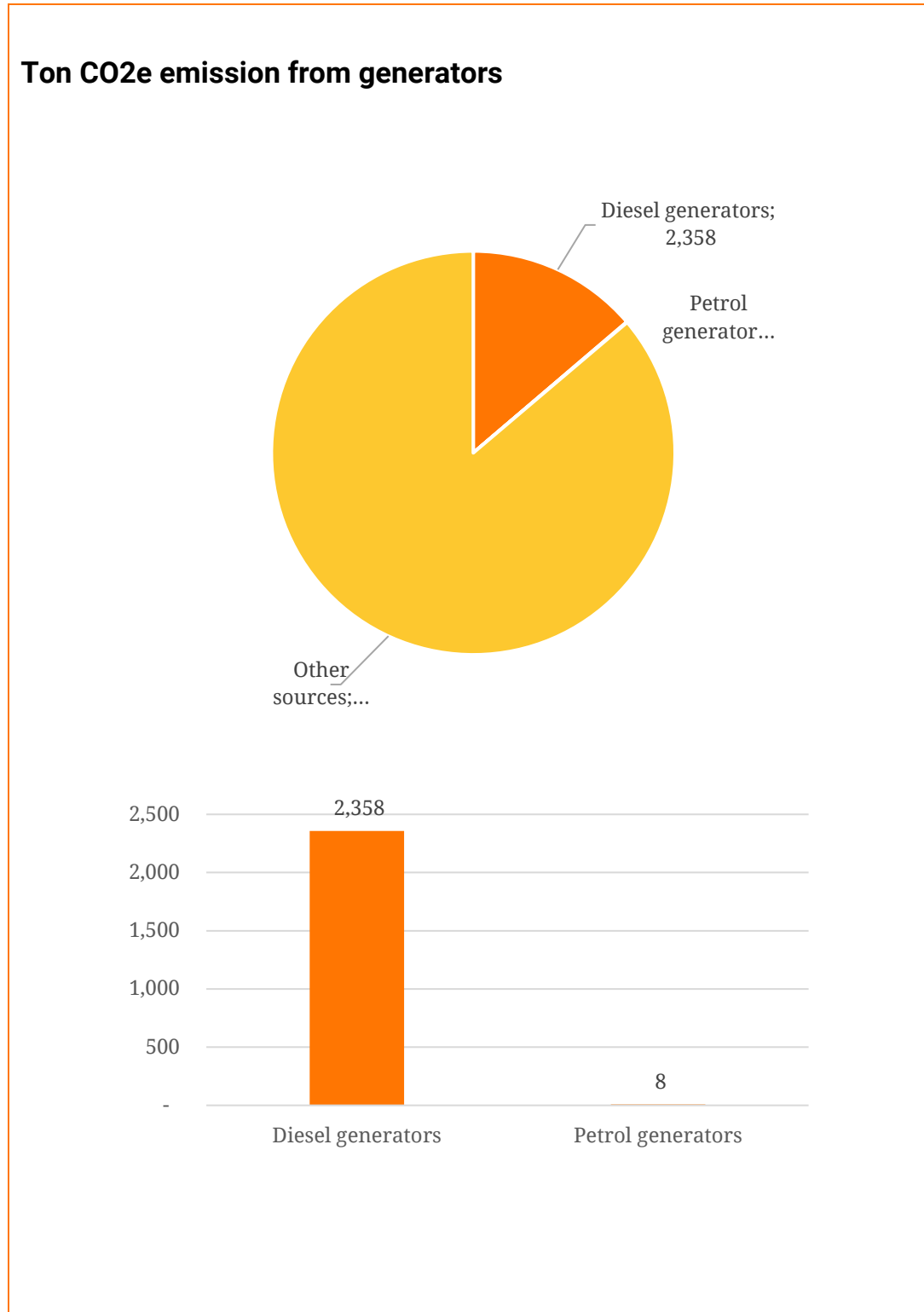
2.2 CO2e emissions per office category

These numbers do not include NORCAP.



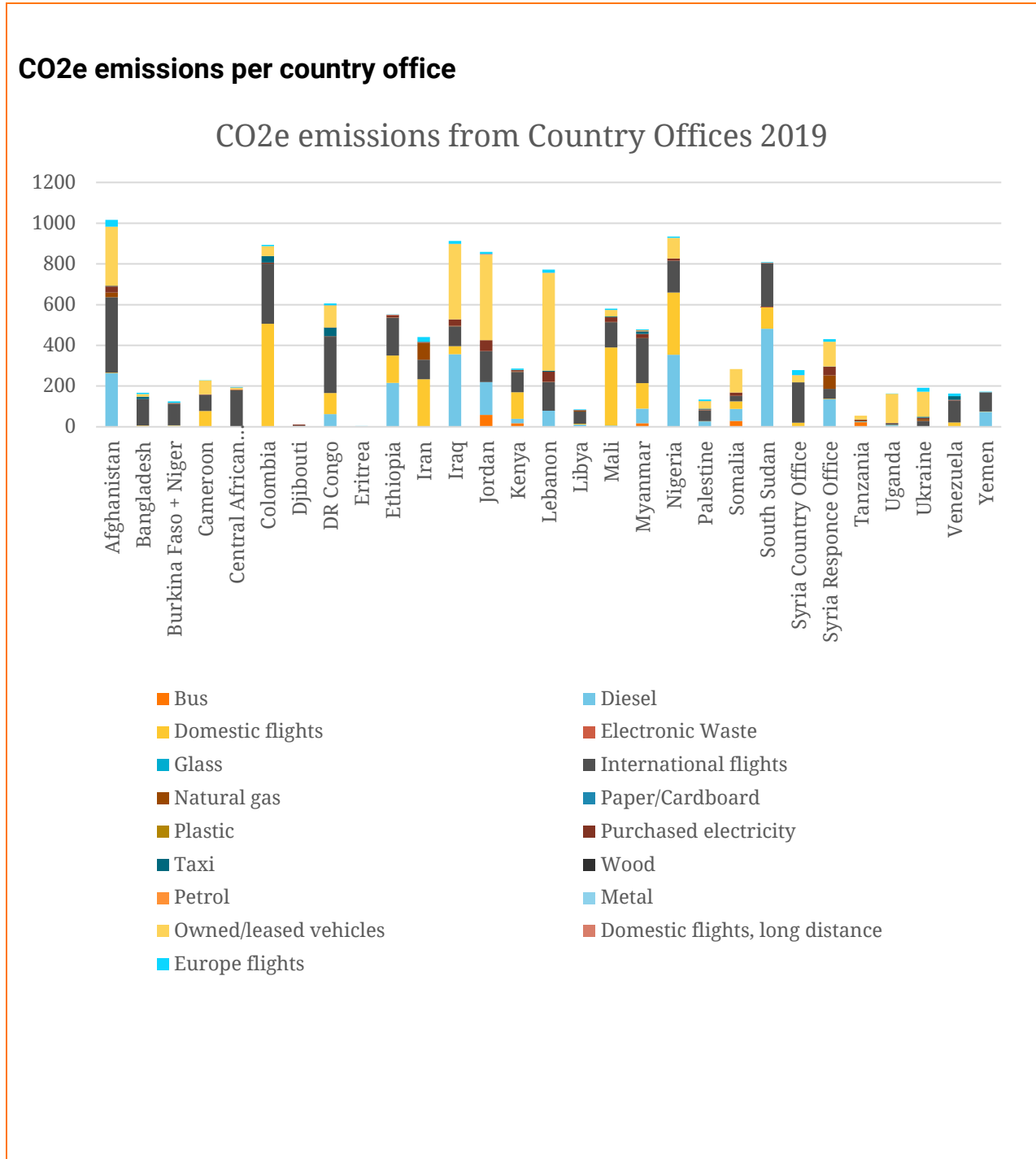
2.3 Ton CO2e emission from generators

Generators makes up 14% of total GHG emissions of NRC in 2019 and most of these generators are diesel generators.



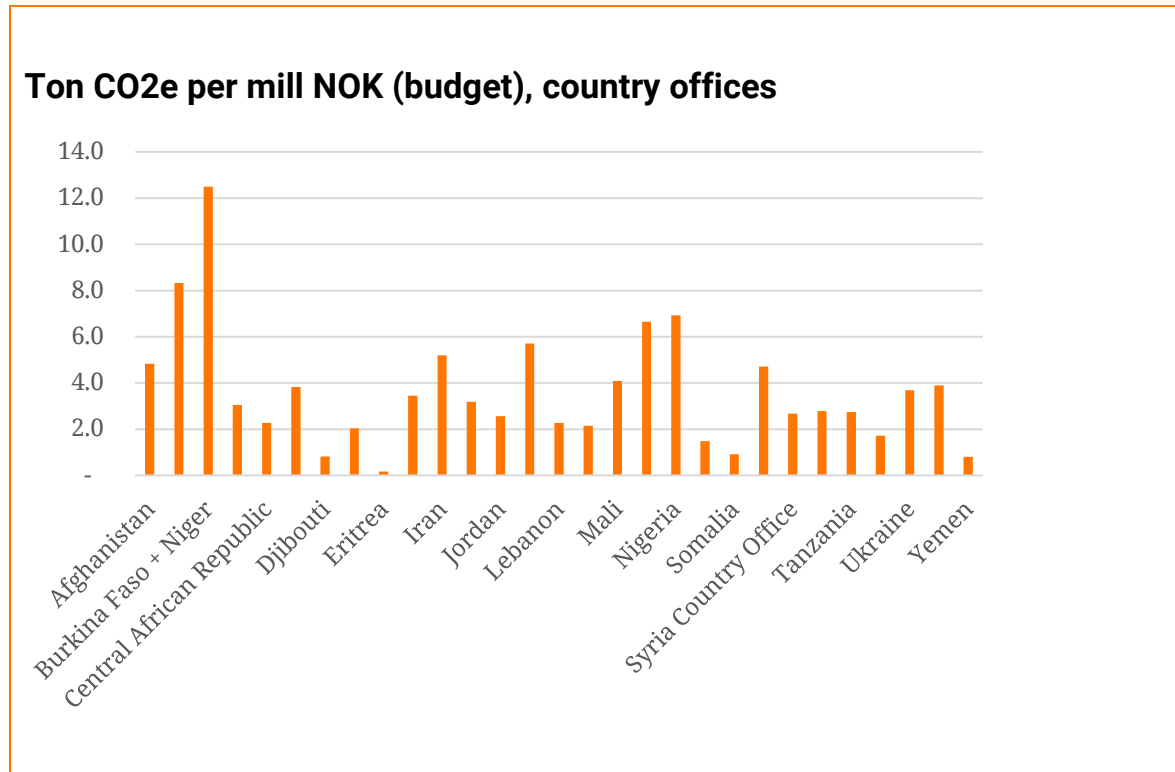
2.4 CO2e emissions per country office

Emissions from diesel generators is high in South Sudan, Nigeria, Iraq, Ethiopia and Afghanistan. Colombia is an outlier with 7% of total flight related emissions – the highest after NORCAP and HO Oslo. Emissions from vehicles are the highest in Lebanon, Jordan and Iraq.



2.4.1 Emission intensity 2019

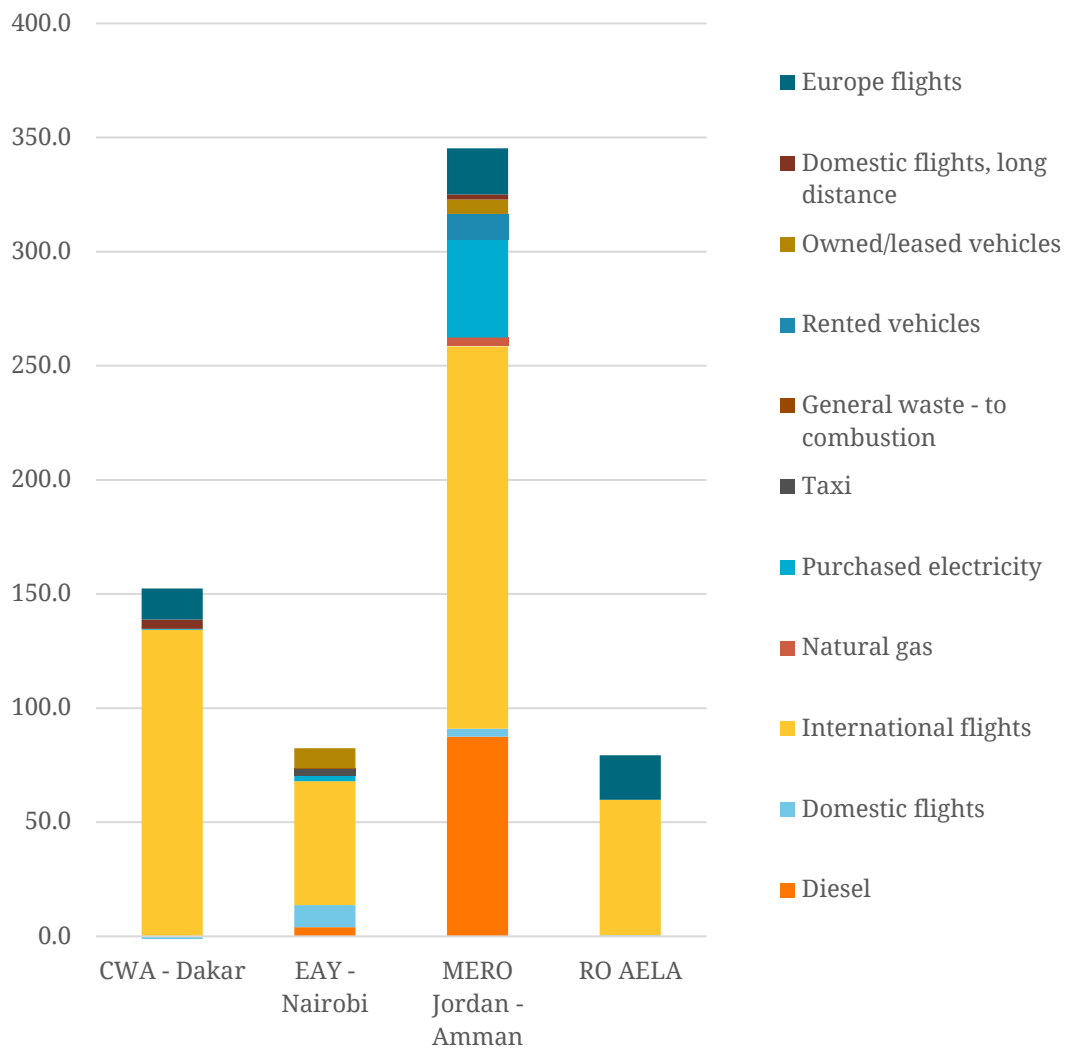
Emission intensity represents the level of emissions relative to economic activity (the office budget), which shows the relationship between the budgeted money and the emissions generated likely due to that spending. Data for Colombia and Venezuela are in actuals, not budgeted for 2019.



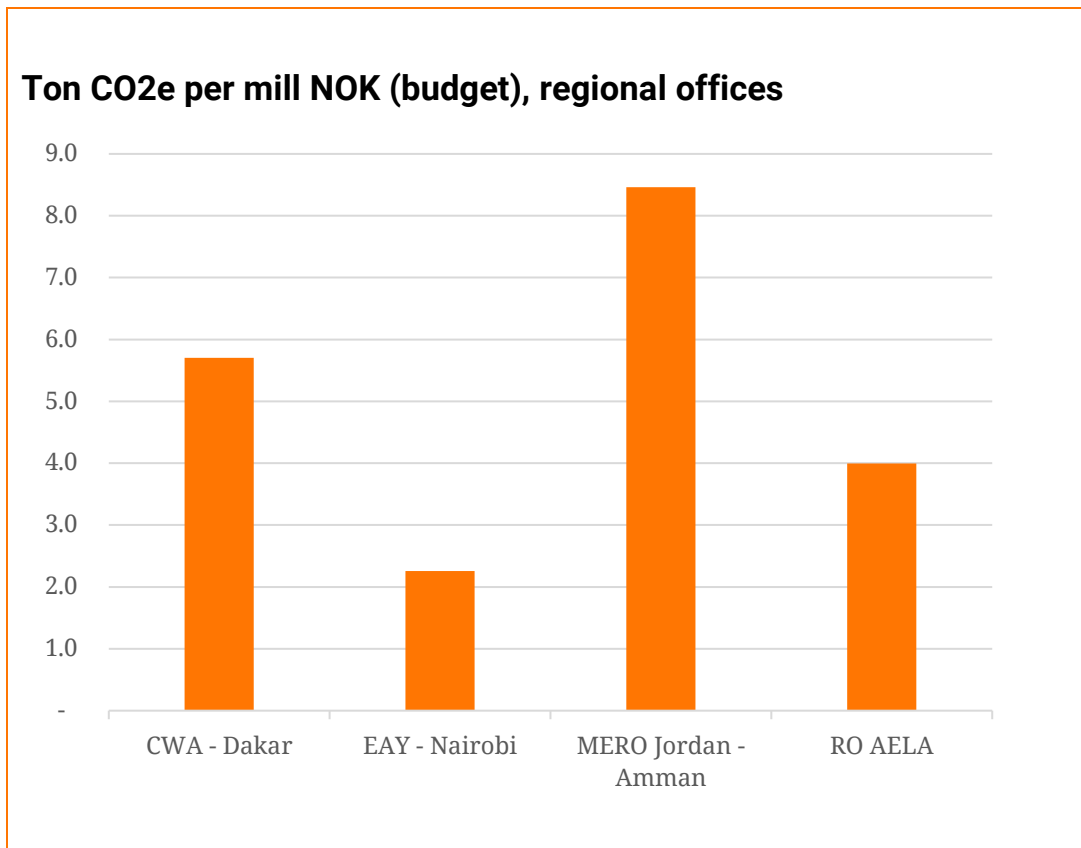
2.5 Emissions per regional office

The difference between Middle East Regional Office (MERO) and the other ROs Central and West Africa (CWA), East Africa and Yemen (EAY) and Asia, Europe and Latin America (AELA) could be partially explained due to better reporting, but they do have a large consumption of diesel, international flights and electricity. RO AELA only covers flights as the rest is counted as HO because it is based at HO and it is therefore difficult to separate the two.

CO2e emissions regional Offices



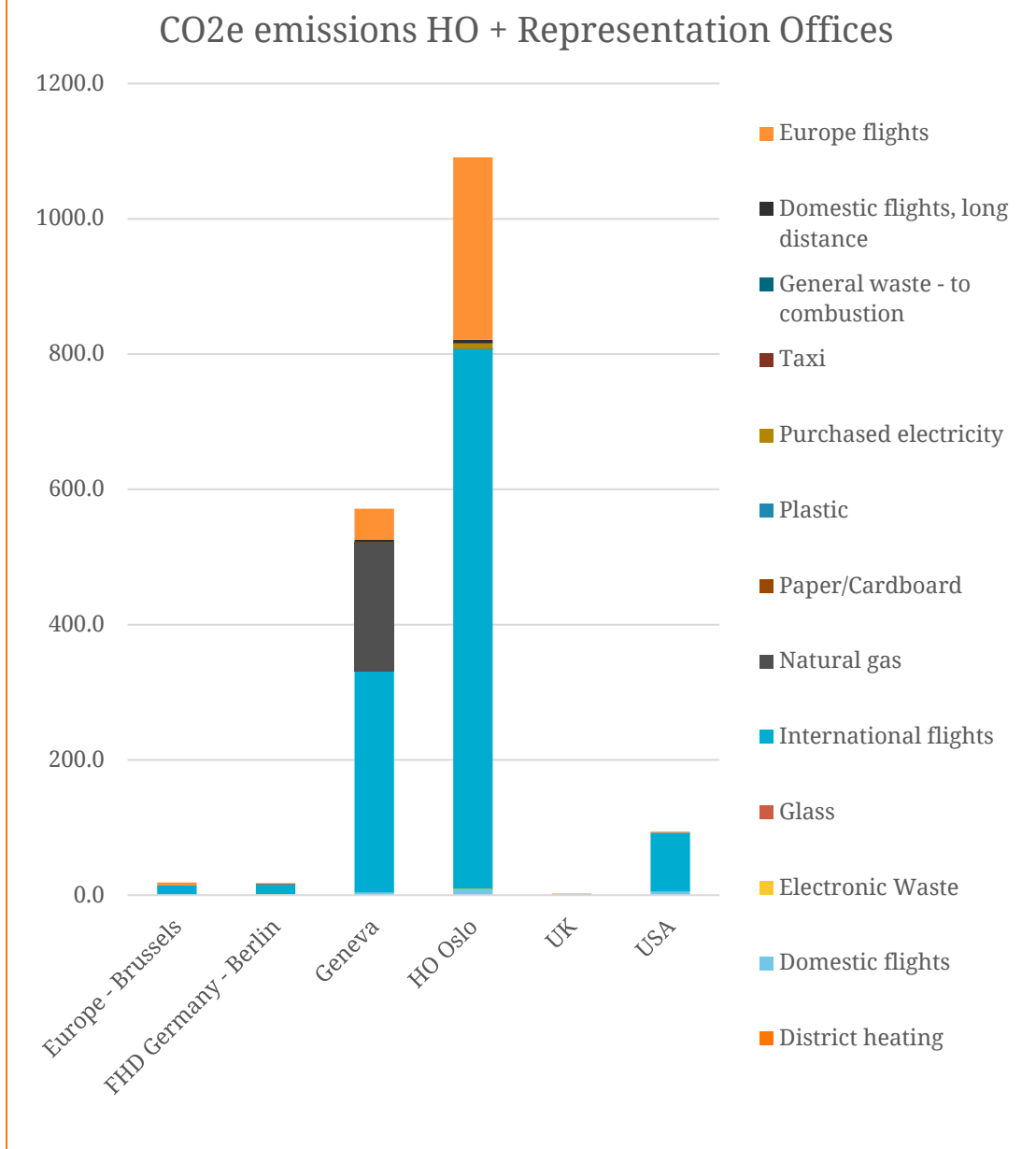
2.5.1 Emission intensity 2019



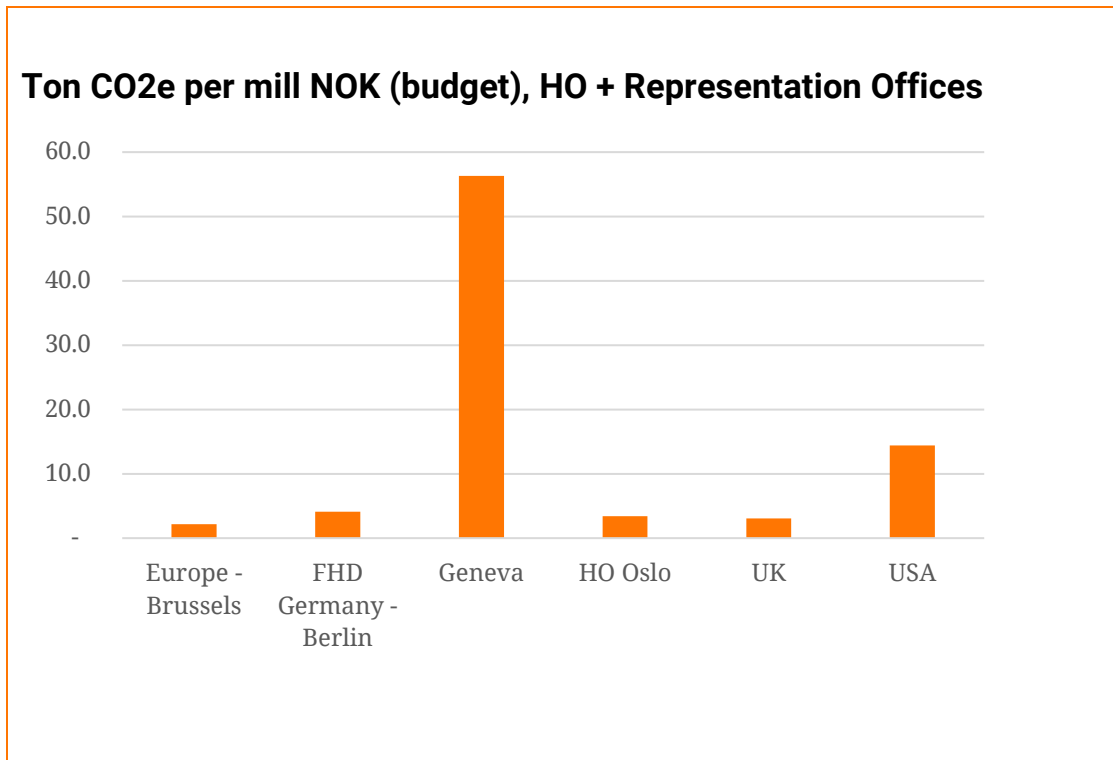
2.6 Head office and representation offices

The head office is as expected the office with the most emissions, but it is not when budget intensity is also considered. Geneva is NRC's largest representational office and their numbers also include IDMC. It is important to note that the quality of reporting also plays a factor here as several of the representations offices were only able to provide partial data. Only flight data was included in the overview of emissions from the UK office because it was not established as a representation office in 2019.

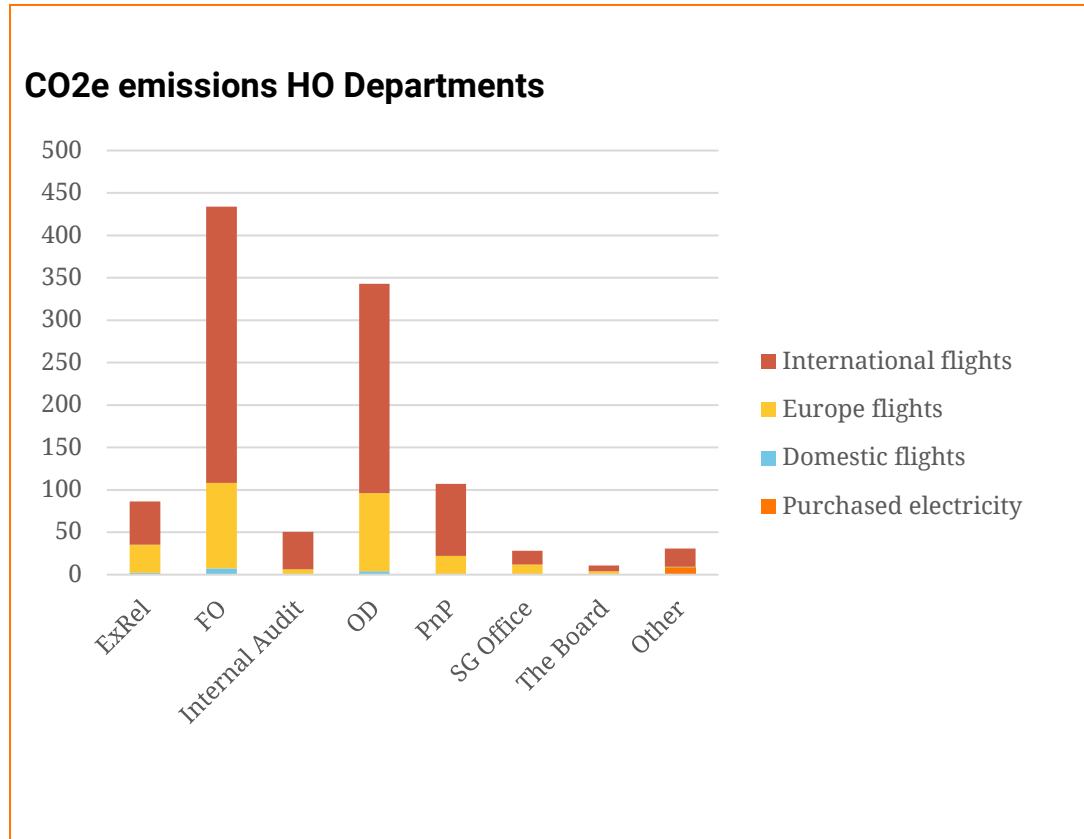
CO2e emissions HO + representation offices



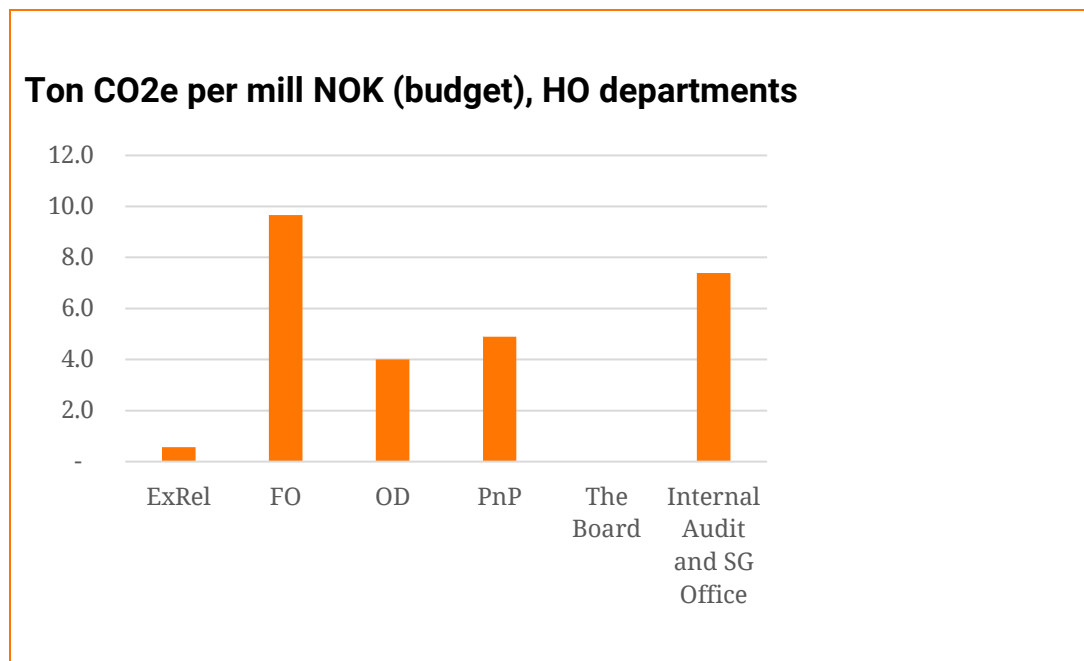
2.6.1 Emission intensity 2019



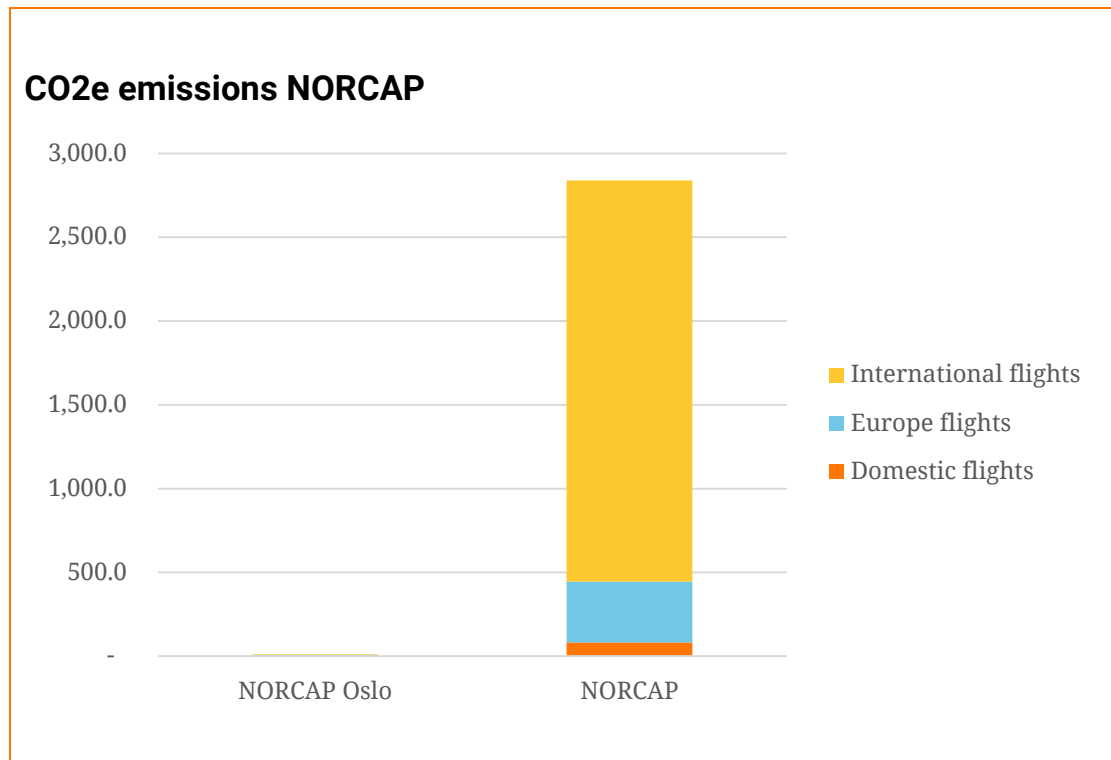
2.7 HO Departments



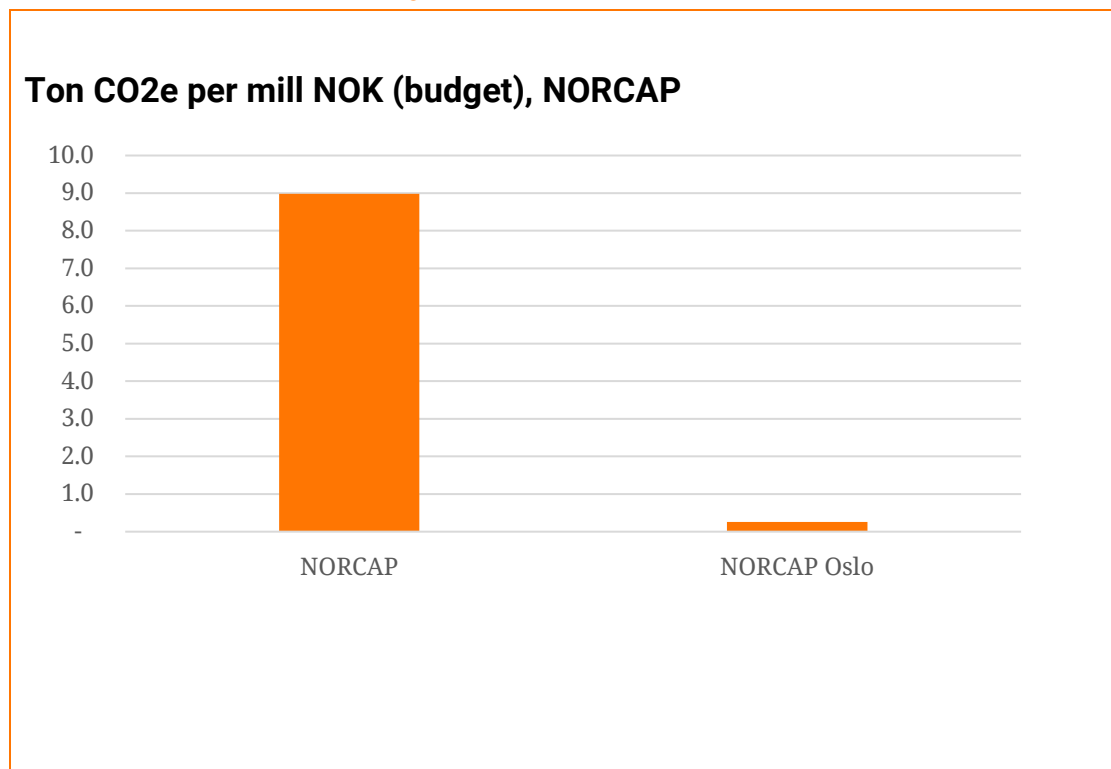
2.7.1 Emission intensity 2019



2.8 NORCAP

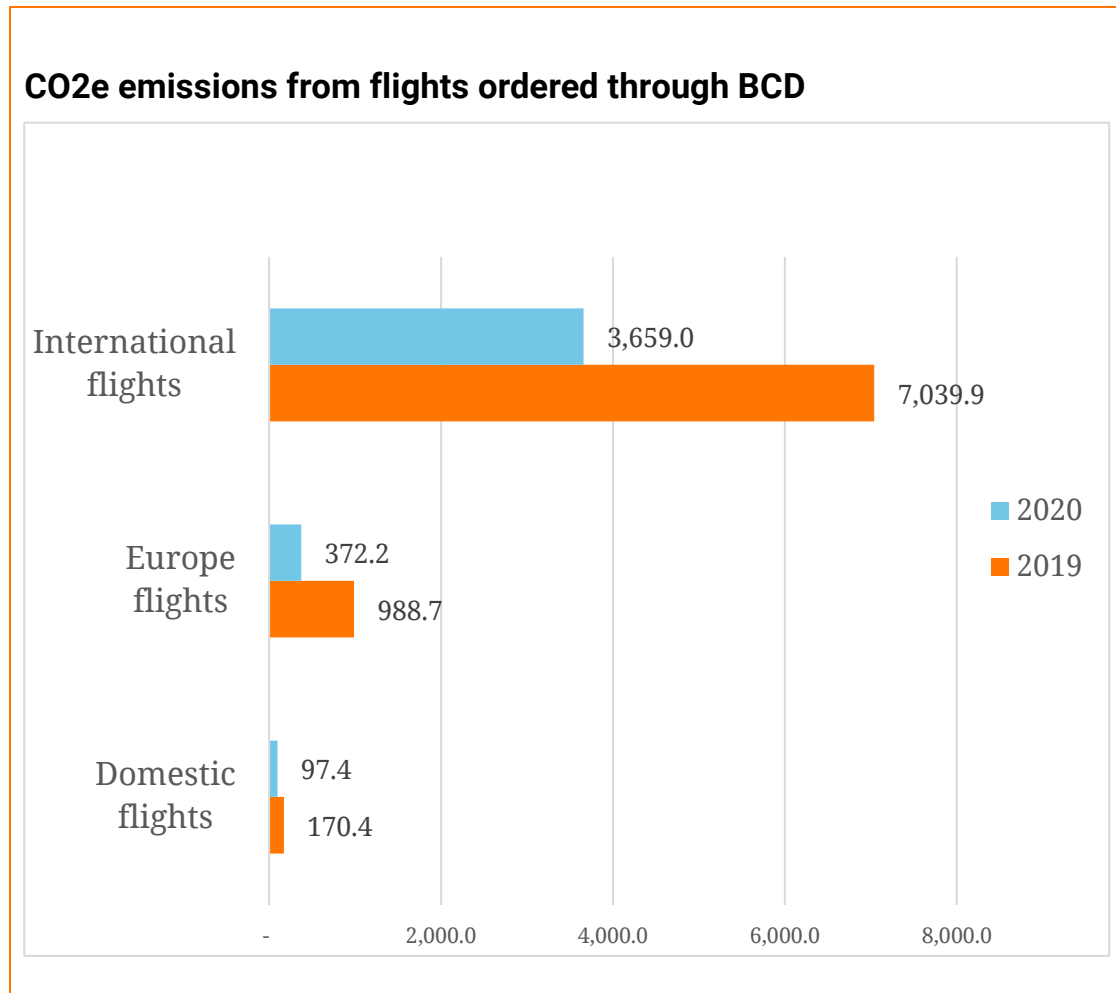


2.8.1 Emission intensity 2019

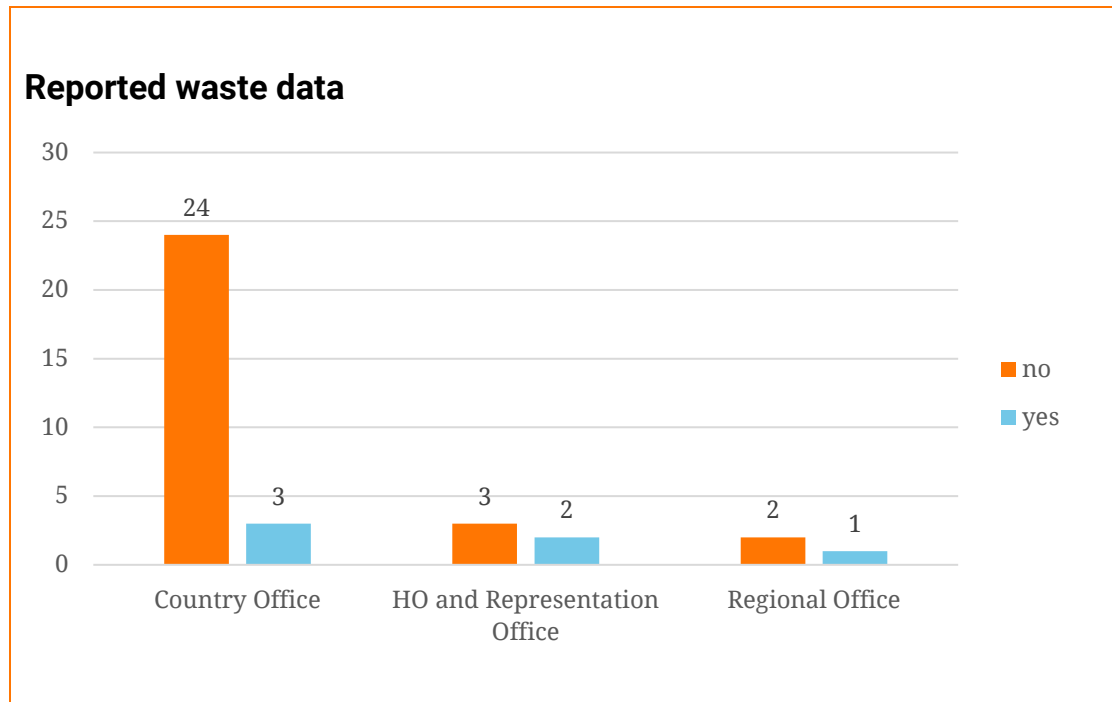


2.9 Flights reduction 2019- 2020

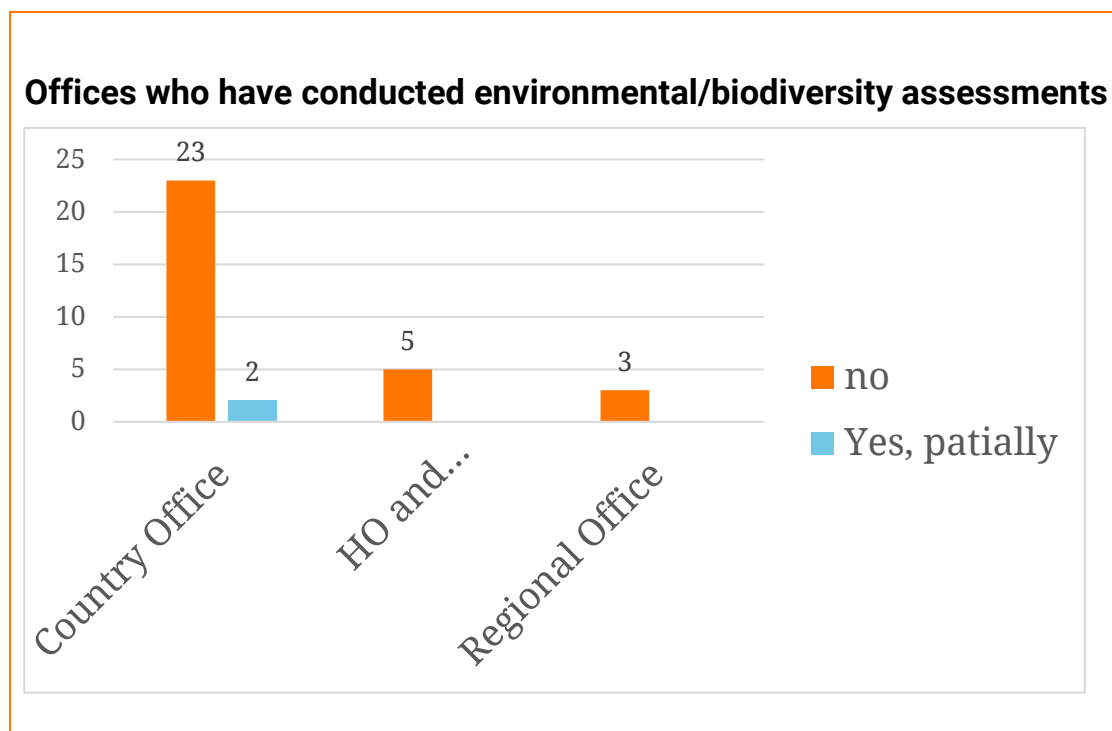
The 2020 data was only collected from BCD, while for 2019 country offices were also asked to report on flights that had been booked in country or privately. It is therefore mainly on international flights that we can compare the two years.



2.10 Waste Management



2.11 Environmental Assessments



3 Further considerations

For some important data sources, such as data on waste, the NRC locations were mostly unable to provide quantitative data for the baseline exercise. Improved routines, systems and practices could increase our ability to provide more data to produce more accurate aggregated overviews. NRC might also benefit from improvements and developments of emission accounting tools adapted to the humanitarian sector.

3.1 KPMG`s recommendations:

Several steps can be taken by NRC to improve the method, scope, and data quality of the baseline. Some of the main improvements are presented below.

3.1.1 More detailed emission factors

When deciding to engage with the different aspects of the baseline, some improvements on the use of emission factors can be performed. The DEFRA emission factors used in the baseline are often based on averages and estimations. An example is electricity emission factors for Africa, Asia and Latin-America. These are based on average electricity production for the region. As NRC moves forward in its transition to renewable energy, more detailed country level emission factors for electricity can be used to get more accurate data for decision-making.

3.1.2 Extension of scope

For NRC to have a complete overview of emissions relating to the organization, the scope will need to be extended to include programmes, as well as NRC's supply chain. This is a process that takes time and resources. NRC's decentralized procurement procedures represents a challenge to measure the emissions related to its supply chain.

3.1.3 Systematic approach

NRC has some strategic areas that will require a systematic approach with coordination, knowledge transfer and support across the whole organisation.

For waste, local offices and programmes need knowledge and tools to manage waste and reporting. A way forward could be to engage some offices in a pilot project to develop a method that can be rolled out to the whole organisation.

NRC needs a plan for implementation and monitoring to achieve targets to reduce energy from generators and increase own production of renewable energy. It is important that the correct technology is installed so that the organization can track the energy production and consumption from different locations. Knowledge about technological solutions must be provided and individual procurement personnel should receive training and guidance to ensure that all NRC offices are working towards a common goal.

NRC would benefit from a more automated, software-based data collection and compilation tool for future monitoring and baseline studies. This will require knowledge of existing tools, training and coordination for the personnel involved.