

# MASSIVE ATTACK – TOUR CARBON FOOTPRINT SUMMARY

This summary report provides data on the carbon emissions related to Massive Attack’s three tours carried out in 2016, 2017, 2018 and 2019. The scope of the assessment covers carbon emitting activities related to air travel, freight of goods (air and road), bus travel, sea travel and hotel nights. Emission factors published by the UK Government have been used against the raw data (kWh and km) to produce tonnes of CO<sub>2</sub>e.

In addition to the emissions based on the group’s travel to the venues, the report shows the estimated emissions related to people attending the gigs, based on a mix of travel options and estimated hotel stays.

## Massive Attack Tour - Europe 2016 - Carbon Footprint

| Activity | Sub activity | Value        | Amount        | KG - CO2          | Tonnes - CO2  |
|----------|--------------|--------------|---------------|-------------------|---------------|
| HGV      | Road         | Tonne.km     | 654,939       | 63,345.13         | 63.35         |
|          | Sea          | Tonne.km     | 5,273         | 272.44            | 0.27          |
| Coach    | Road         | Passenger.km | 1,155,774     | 32,373.23         | 32.37         |
|          | Sea          | Tonne.km     | 4,343         | 224.37            | 0.22          |
| Flights  | Economy      | KM           | 138,617       | 22,137.21         | 22.14         |
|          | Business     | KM           | 8,401         | 2,012.47          | 2.01          |
| Hotels   | -            | Nights       | 48            | 1,267.20          | 1.27          |
|          |              |              | <b>TOTALS</b> | <b>121,632.06</b> | <b>121.63</b> |

## Massive Attack Tour - Japan 2017 - Carbon Footprint

| Activity | Sub activity | Value    | Amount  | KG - CO2          | Tonnes - CO2  |
|----------|--------------|----------|---------|-------------------|---------------|
| HGV      | Air          | Tonne.km | 221,237 | 272,574.43        | 272.57        |
| Flights  | Economy      | KM       | 597,339 | 97,240.74         | 97.24         |
| Hotels   | -            | Nights   | 68      | 5,134.00          | 5.13          |
|          |              |          |         | <b>374,949.17</b> | <b>374.95</b> |

**Massive Attack Tour - Europe 2018 - Carbon Footprint**

| Activity | Sub activity | Value        | Amount    | KG - CO2          | Tonnes - CO2  |
|----------|--------------|--------------|-----------|-------------------|---------------|
| HGV      | Road         | Tonne.km     | 735,080   | 61,364.48         | 61.36         |
|          | Sea          | Tonne.km     | 7,276     | 375.91            | 0.38          |
| Coach    | Road         | Passenger.km | 1,297,200 | 36,334.57         | 36.33         |
| Flights  | Economy      | KM           | 150,754   | 24,075.40         | 24.08         |
|          | Business     | KM           | 9,137     | 2,188.67          | 2.19          |
| Hotels   | -            | Nights       | 721       | 18,103.74         | 18.10         |
|          |              |              |           | <b>142,442.77</b> | <b>142.44</b> |

**Massive Attack Tour - Europe 2019 - Carbon Footprint**

| Activity | Sub activity | Value        | Amount  | KG - CO2          | Tonnes - CO2  |
|----------|--------------|--------------|---------|-------------------|---------------|
| HGV      | Road         | Tonne.km     | 930,410 | 89,988.51         | 89.99         |
|          | Sea          | Tonne.km     | 27,795  | 1,436.00          | 1.44          |
| Coach    | Road         | Passenger.km | 328,380 | 9,125.68          | 9.13          |
|          | Sea          | Tonne.km     | 4,578   | 236.52            | 0.24          |
| Flights  | Economy      | KM           | 152,180 | 24,303.22         | 24.30         |
|          | Business     | KM           | 9,223   | 2,209.38          | 2.21          |
| Hotels   | -            | Nights       | 27      | 588.20            | 0.59          |
|          |              |              |         | <b>127,887.51</b> | <b>127.89</b> |

### Massive Attack Tour - USA 2019 - Carbon Footprint

| Activity         | Sub activity | Value        | Amount  | KG - CO2          | Tonnes - CO2  |
|------------------|--------------|--------------|---------|-------------------|---------------|
| HGV              | Road         | Tonne.km     | 379,485 | 30,893.87         | 30.89         |
| Coach            | Road         | Passenger.km | 758,970 | 21,091.78         | 21.09         |
| Flights          | Economy      | KM           | 512,056 | 70,891.81         | 70.89         |
|                  | Business     | KM           | 42,671  | 17,132.13         | 17.13         |
| Internal flights | Economy      | KM           | 120,558 | 18,774.43         | 18.77         |
|                  | Business     | KM           | 9,284   | 2,168.65          | 2.17          |
| Hotels           | -            | Nights       | 829     | 17,740.60         | 17.74         |
| Car travel       | Road         | Mile         | 736     | 335.14            | 0.34          |
| Train            |              | KM           | 15,554  | 640.05            | 0.64          |
| <b>TOTALS</b>    |              |              |         | <b>179,668.46</b> | <b>179.67</b> |

### Emissions from attendees – Europe & USA Tours 2019; and Europe Tour 2018

In order to gather an estimated carbon footprint from people attending the gigs, research data from UK Live Music Census 2017<sup>1</sup> was used as a basis for the calculations, which defined the travel routes made by the average person to music venues. This was amended based on data from the client to refine in order to make it more relevant to Massive Attack (in particular the bigger venues and distance travelled).

Actual data from the attendees was unavailable and therefore it was estimated that 10% of USA and 3% of Europe gig attendees took a short haul flight (defined as 1,500 km per journey). In addition it was estimated that 10% of USA and 3% of Europe gig attendees stayed one night in a hotel as a result of attending the gig.

Attendee emissions from the European Tour in 2018 were based on the standalone gigs in the following locations:

- Budapest
- Istanbul
- Montreux
- Koln
- Nimes

Based on this the carbon footprint per attendee was 62.44 kg CO<sub>2</sub>e for USA and 23.39 kg CO<sub>2</sub>e for Europe attendees. In total this created the following carbon footprint for attendees:

<sup>1</sup> UK Live Music Census 2017 - <http://uklivemusiccensus.org/wp-content/uploads/2018/03/UK-Live-Music-Census-2017-full-report.pdf>



| Location      | Attendees      | Tonnes CO2      |
|---------------|----------------|-----------------|
| Europe - 2019 | 170,000        | 3,961.50        |
| USA - 2019    | 66,000         | 4,121.20        |
| Europe - 2018 | 21,500         | 501.01          |
| <b>Total</b>  | <b>257,500</b> | <b>8,583.71</b> |

## Totals

| Activity                      | Tonnes - CO2e    |
|-------------------------------|------------------|
| Europe - 2016                 | 121.63           |
| Japan - 2017                  | 374.95           |
| Europe - 2018                 | 142.44           |
| Europe - 2019                 | 127.89           |
| USA - 2019                    | 179.67           |
| Attendees - 2019              | 8,583.71         |
| <b>Total</b>                  | <b>9,530.29</b>  |
| <i>Assumption factor - 5%</i> | <i>476.51</i>    |
| <b>Overall Total</b>          | <b>10,006.81</b> |

## Carbon Offsetting Impacts

To counter the impact of these carbon emissions, and to take ownership of your footprint, DaysE & CO2balance recommend the calculate, reduce and offset approach.

The offsetting of these emissions can be achieved through supporting high impact carbon offset projects in Africa that DaysE And CO2balance develop and run. An example of these projects is shown below:

*African Borehole Rehabilitation Project*

The most basic requirement to sustain life is clean water. For many rural communities across Sub-Saharan Africa the struggle to find clean safe drinking water can take a major part of a families' resource. More often than not the burden falls to women and children to collect water often walking a great distance from home. Even then water drawn from pools or rivers is often contaminated with pollutants and potentially lethal bacteria that cause illness and infections, and so to make the water palatable and safe to drink it needs to be boiled.

The project works with local communities to identify and repair the many broken boreholes in Malawi, Uganda and Eritrea. As well as the natural health benefits it means that families no longer have to boil the water, saving firewood and thereby preventing carbon emissions from being released. The project creates a funding mechanism for the community that ensures the long-term maintenance of the boreholes.



*Impacts*

Based on a carbon footprint of 9,332 tCO<sub>2</sub>e, supporting the African Borehole Project would equate to the following impacts within the communities of Africa:

|                                |            |
|--------------------------------|------------|
| Tonnes CO <sub>2</sub>         | 9,332      |
| Wood saved (tonnes)            | 6,593      |
| Litres of clean water provided | 14,566,941 |
| People impacted                | 5,321      |
| Of which are children          | 2,980      |
| Time saved (hours)             | 539,948    |

### DaysE Impact 3E Project

Access to education is a fundamental human right that empowers the individual and provides the basis for poverty alleviation through the pursuit of formal qualifications. Access to energy in the education system limits a school’s potential to provide state of the art technology-based learning such as computer labs. To operate, sustain and develop a model for duplication, enterprise-based initiatives underpin their scalability. It is to this end that the 3E initiative has been developed to pilot a model comprising of Energy, Education and Enterprise based on a renewable energy powered computer lab that forms the basis of a local social enterprise incubator.

Working in partnership with Kinetic NRG (London) and Camara Education (Dublin and Tanzania) the 3E pilot programmed will see the deployment of a zero-carbon based energy hub incorporating an e-learning centre and a battery rental based energy enterprise. This will result in the offsetting of fossil fuel generation and kerosene lighting systems.

|   |  |   |
|---|--|---|
|   | <h2>DaysE</h2> <p>DaysE (Donate as you save Energy) is an Irish social enterprise delivering impact, both environmental and social, through low-carbon energy solutions.</p> <p>Since 2015, DaysE’s initiatives in Ireland have channelled funding of almost €1m towards energy efficiency and renewable energy installations for non-profit organisations, thereby reducing carbon emissions and utility costs.</p> | <h2>Partnership</h2> <p>To fund, deliver and report on the energy, education, enterprise and training aspects of this project DaysE is working in collaboration with service providers in Ireland, the United Kingdom and Tanzania.</p> <p>Project partners include:</p> <ul style="list-style-type: none"> <li>• Forum for Renewable Energy (Ireland),</li> <li>• Camara Education (Ireland &amp; Tanzania)</li> <li>• Kinetic NRG (London)</li> </ul> |
| <h2>Energy</h2> <p>DaysE installs renewable &amp; clean energy systems in primary schools in Tanzania without previous access to electricity. These are Solar PV &amp; Battery Storage systems, ideally suited to the climate. The energy generated and used is remotely monitored.</p> <p><b>SUSTAINABLE DEVELOPMENT GOALS</b></p> <p>This project’s goals align with many of the UN Sustainable Development Goals including Quality Education, Gender Equality, Affordable &amp; Clean Energy, Climate Action, Decent Work &amp; Economic Growth and Partnerships.</p>  | <h2>Education</h2> <p>Camara Education equips a computer laboratory in each school with low energy ICT hardware and localised educational software. Teachers receive training in using the laboratory as an educational tool. The laboratory is available day or night due to the storage of solar energy in batteries.</p>  | <h2>Enterprise</h2> <p>An enterprise hub, adjacent to each school, is powered by excess energy from the Solar PV system. Following enterprise training, this hub is locally managed and generates revenue to pay for the cost of the energy and ICT infrastructure. This hub ensures wider community benefit.</p>   |





The pilot project will work initially with 2 off-grid communities based in the Bogomoya region of Tanzania. Each community will be assisted in establishing a social enterprise to, create local employment, generate a revenue stream to underpin a social impact investment model. Our education partner will develop content and monitor and measure the progress of students.

### *Impacts*

|                        |  |
|------------------------|--|
| Tonnes CO <sub>2</sub> | 500-600 Tonnes (TBC)                           |
| Education              | Up to 1000 students per annum upskilled        |
| Energy                 | 300 homes provided with access to clean energy |
| People impacted        | 1400 per annum                                 |
| Of which are children  | 1,000  |
| Jobs created           | 10-15 full and part time roles.                |

### Contact:

**Matt Mills**  
DaysE Carbon Manager

+353(0)877990607

[matt@dayse.org](mailto:matt@dayse.org)

[www.dayse.org](http://www.dayse.org).

Paul Chiplen

☎ +44(0)1823 332233

✉ [paul.chiplen@co2balance.com](mailto:paul.chiplen@co2balance.com)

🌐 [www.co2balance.com](http://www.co2balance.com)

Date: 23<sup>rd</sup> August 2019