

# Getting around in Gauteng and your carbon footprint

“Carbon is just like money in that you can’t manage it unless you understand it, at least in broad terms. ... Our **carbon instinct** needs to be just like the one we have for managing our money.” Mike Berners-Lee in *How bad are bananas? The carbon footprint of everything*.

**Immediate:** Only takes into account direct emissions associated with, in particular, the fuel burnt for the trip.

**Full-picture:** Includes a proportion of the emissions linked to the production of the vehicle we are in.

**Five-year view:** Applies particularly to private cars. What is the ‘full picture’ if, instead of making our car last as long as it can, we discard it after five years (a fairly typical phenomenon)?



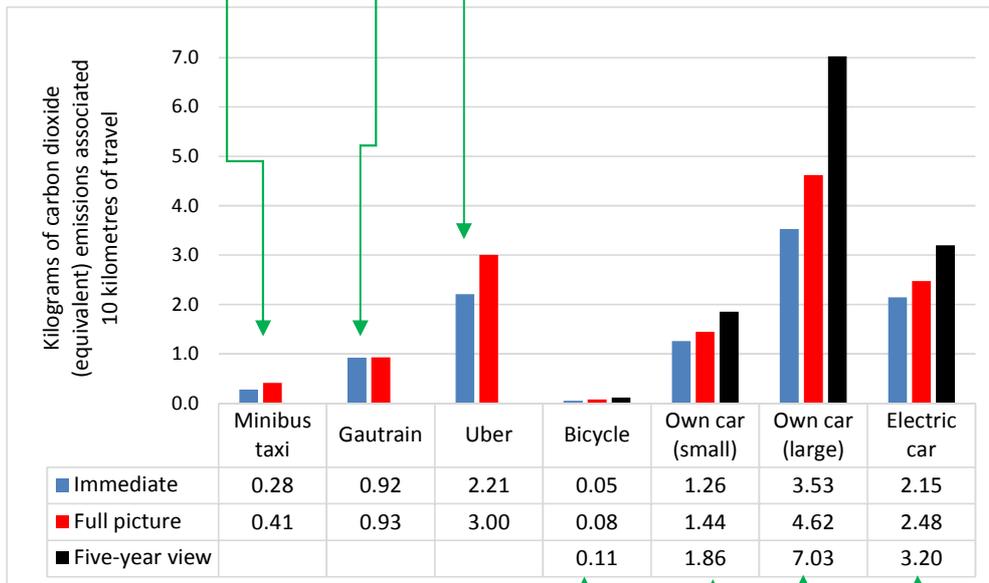
**Minibus taxi.** Maybe not everyone’s favourite mode of transport, but relatively clean, environmentally speaking. Considerably cleaner than the Gautrain.

**Gautrain.** This is obviously a complex one to calculate. For instance, one has to take into account variation in riders per carriage over different times. Gautrain claims to produce half the emissions of private car travel. Roughly, the figures I arrived at are in line with this claim. Gautrain emissions are likely to be higher than the emissions for similar electrical train services elsewhere in the world, because electricity generation in South Africa is so emissions-intensive.



UBER

**Uber.** Riding with Uber causes relatively high emissions. This is partly because Ubers are not small cars, and because they must drive to pick you up.



**Bicycle.** Overly simplistic notions of emissions are not good. A common one is that if you ride a bicycle, there are zero emissions. It’s educational to consider, for instance, that when you cycle you exhale more CO<sub>2</sub> than you normally do, and that CO<sub>2</sub> comes from food production processes which burn fossil fuels. The bicycle itself was of course produced through an industrial process. Having said this, cycling remains a low emissions form of transport.

**Own car (small).** I looked at the Citroen C1 with a one-litre engine. The figures here are for one driver with no passengers. Clearly, higher emissions than the Gautrain, but lower emissions than for an electric car.

**Own car (large).** The model considered here is the Land Rover Discovery. As one would expect, driving alone in a large car is particularly bad for the environment.

**Electric car.** The car considered here is the Nissan Leaf. If your concern is the environment, then you might do better (and spend less) by getting a small petrol-driven car. That is unless you install solar electricity generation at home and always recharge your car using this.

