GHG-Emissions-Assessment

William F. Lamb

# Setup

# Functions

# Source emissions files

## Joining with `by = join\_by(gas)`  
## Joining with `by = join\_by(gas)`  
## Joining with `by = join\_by(gas)`  
## `summarise()` has grouped output by 'year'. You can override using the  
## `.groups` argument.  
## Joining with `by = join\_by(year)`  
## Joining with `by = join\_by(year)`

# Join data

## `summarise()` has grouped output by 'var', 'source', 'units'. You can override  
## using the `.groups` argument.

# Generate plots

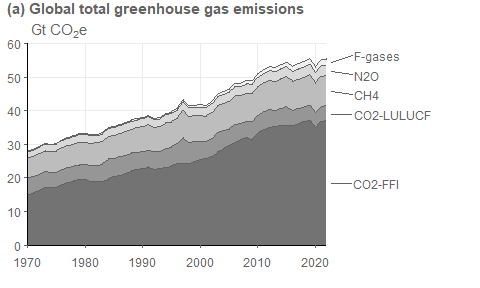
## GHGs

## Warning: The `size` argument of `element\_line()` is deprecated as of ggplot2 3.4.0.  
## ℹ Please use the `linewidth` argument instead.  
## This warning is displayed once every 8 hours.  
## Call `lifecycle::last\_lifecycle\_warnings()` to see where this warning was  
## generated.

## Warning: The `size` argument of `element\_rect()` is deprecated as of ggplot2 3.4.0.  
## ℹ Please use the `linewidth` argument instead.  
## This warning is displayed once every 8 hours.  
## Call `lifecycle::last\_lifecycle\_warnings()` to see where this warning was  
## generated.

## Adding missing grouping variables: `var`, `source`, `units`

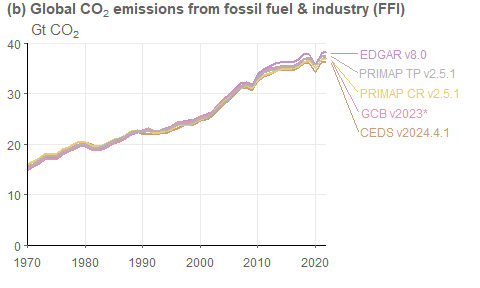
## Warning: Removed 684 rows containing non-finite values (`stat\_align()`).



## CO2 FFI

## Warning: Using `size` aesthetic for lines was deprecated in ggplot2 3.4.0.  
## ℹ Please use `linewidth` instead.  
## This warning is displayed once every 8 hours.  
## Call `lifecycle::last\_lifecycle\_warnings()` to see where this warning was  
## generated.

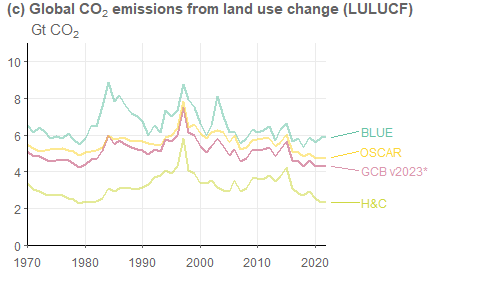
## Warning: Removed 671 rows containing missing values (`geom\_path()`).



## CO2 LUC

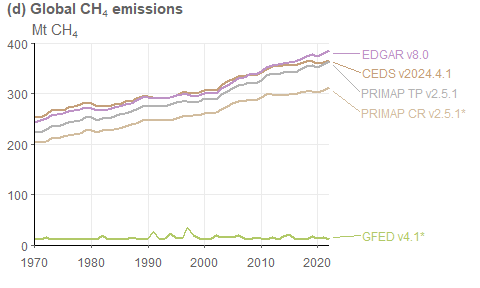
## Warning: Removed 11 rows containing missing values (`geom\_path()`).

## Warning: Removed 33 rows containing missing values (`geom\_path()`).



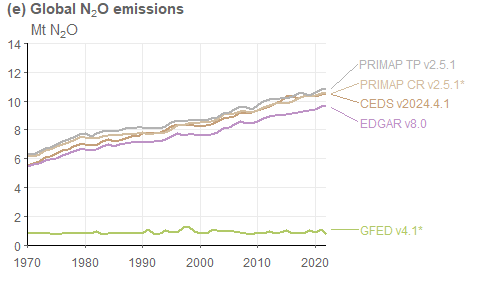
## CH4

## Warning: Removed 661 rows containing missing values (`geom\_path()`).



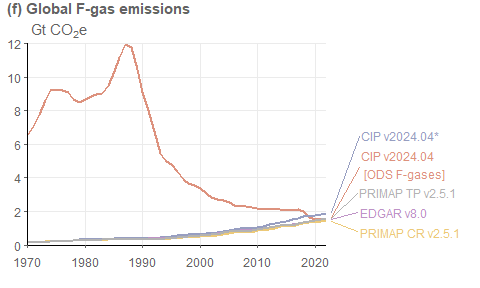
## N2O

## Warning: Removed 661 rows containing missing values (`geom\_path()`).



## F-gases

## Warning: Removed 880 rows containing missing values (`geom\_path()`).



## Combines plot of all sources

## Warning: Removed 684 rows containing non-finite values (`stat\_align()`).

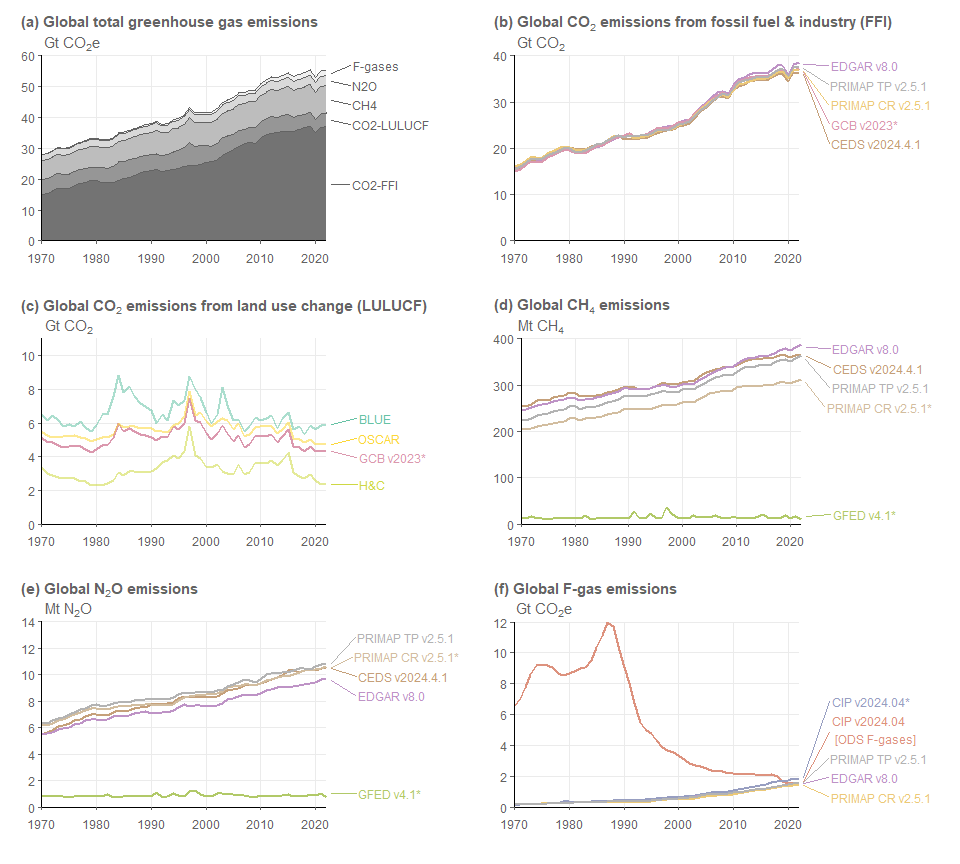
## Warning: Removed 671 rows containing missing values (`geom\_path()`).

## Warning: Removed 11 rows containing missing values (`geom\_path()`).

## Warning: Removed 33 rows containing missing values (`geom\_path()`).

## Warning: Removed 661 rows containing missing values (`geom\_path()`).  
## Removed 661 rows containing missing values (`geom\_path()`).

## Warning: Removed 880 rows containing missing values (`geom\_path()`).



## Table of results

## `summarise()` has grouped output by 'label'. You can override using the  
## `.groups` argument.  
## `summarise()` has grouped output by 'label'. You can override using the  
## `.groups` argument.  
## `summarise()` has grouped output by 'cut', 'label'. You can override using the  
## `.groups` argument.  
## Adding missing grouping variables: `var`

## Comparison to Smith-Hall

## `summarise()` has grouped output by 'year'. You can override using the  
## `.groups` argument.  
## Joining with `by = join\_by(year, var)`

## Comparison to AR6

## Joining with `by = join\_by(year)`  
## Joining with `by = join\_by(year, label)`

## [1] -2.437746

## Comparison between methane estimates

## Warning: There was 1 warning in `mutate()`.  
## ℹ In argument: `iso = countrycode(iso, "iso3c", "iso3c")`.  
## Caused by warning in `countrycode\_convert()`:  
## ! Some values were not matched unambiguously: GLOBAL, SRB (KOSOVO)

## `summarise()` has grouped output by 'iso'. You can override using the `.groups`  
## argument.  
## Joining with `by = join\_by(iso)`  
## `summarise()` has grouped output by 'iso'. You can override using the `.groups`  
## argument.  
## Joining with `by = join\_by(iso)`  
## `summarise()` has grouped output by 'iso'. You can override using the `.groups`  
## argument.  
## Joining with `by = join\_by(iso)`  
## `summarise()` has grouped output by 'iso', 'source'. You can override using the  
## `.groups` argument.  
## `summarise()` has grouped output by 'iso'. You can override using the `.groups`  
## argument.

## Warning: There was 1 warning in `mutate()`.  
## ℹ In argument: `country = countrycode(iso, "iso3c", "country.name")`.  
## ℹ In group 8: `iso = "EUR"`.  
## Caused by warning in `countrycode\_convert()`:  
## ! Some values were not matched unambiguously: EUR

