

Kampala Model

This document is used to produce some tables from the Kampala test model output. The tables can be compared with other model revisions.

Human Sanitation Attribution

Print the attribution of sanitation types to the surface water emissions.

```
fpath <- testthat::test_path("output", "kla", "human_sources_rotavirus_kla_water.csv")
n_digits <- 5
df_human_sources_water <- read.csv(fpath)
df_print <- df_human_sources_water %>%
  dplyr::mutate_if(is.numeric, format, digits = n_digits, scientific = TRUE) %>%
  dplyr::rename_with(~ stringr::str_trunc(.x, 10))
df_print %>% dplyr::select(iso, 2:8)
```

iso	bucketL...	compost...	contain...	flushOpen	flushPit	flushSe...	flushSewer
1	0	1.0824e+10	0	5.8597e+12	6.7309e+10	2.3323e+11	1.1893e+13
2	0	3.7942e+09	0	4.2429e+12	4.5091e+11	1.1137e+12	0.0000e+00
3	0	1.8002e+10	0	1.1170e+13	7.2373e+11	2.2734e+12	0.0000e+00
4	0	6.2749e+09	0	6.5522e+12	5.0427e+11	2.1585e+12	0.0000e+00
5	0	7.4791e+09	0	5.2296e+12	7.8373e+11	1.4512e+12	1.8953e+13

```
df_print %>% dplyr::select(iso, 9:14)
```

iso	flushUn...	hanging...	openDef...	other	pitNoSlab	pitSlab
1	3.7176e+12	0.0000e+00	5.5511e+12	1.4867e+12	1.5559e+11	2.4404e+12
2	1.3258e+13	2.6803e+11	1.1617e+13	1.8836e+12	6.2408e+11	2.8806e+13
3	5.1082e+13	1.0084e+11	1.7778e+13	5.3607e+12	1.1778e+12	2.5170e+13
4	3.8535e+13	1.6317e+12	1.6672e+13	1.9984e+12	1.1613e+12	1.9031e+13
5	3.1370e+13	5.8429e+10	1.0857e+13	1.2768e+13	1.5000e+12	3.0162e+13

Surface Water Pathways

Print the attribution from various pathways to the surface water emissions.

```
fpath <- testthat::test_path("output", "kla", "human_emissions_rotavirus_kla_surface_water.csv")
df_pathways_water <- read.csv(fpath)
df_pathways_water %>%
  dplyr::mutate_if(is.numeric, format, digits = n_digits, scientific = TRUE)
```

iso	humans	land	wwtp
1	1.9207e+13	7.1999e+09	1.2201e+13
2	6.2183e+13	8.5869e+10	0.0000e+00
3	1.1477e+14	8.1338e+10	0.0000e+00
4	8.8188e+13	6.3329e+10	0.0000e+00
5	9.3604e+13	9.2557e+10	1.9444e+13

Pathways Maps

```
fpath <- testthat::test_path("output", "kla", "pathways.tif")
rast_pathways <- terra::trim(terra::rast(fpath), padding = 0)
terra::plot(log10(rast_pathways), col = hcl.colors(50, palette = "Geyser"), buffer = TRUE)
```

