

Package: GFSir (via r-universe)

October 8, 2024

Type Package

Title Global Food Security analysis using IMPACT model and R

Version 2.5.0

Description Global Food Security analysis using IMPACT model and R.

License GPL (>= 3)

Encoding UTF-8

RoxygenNote 7.2.3

Imports readxl (>= 1.4.3), DOORMAT (>= 3.14.1), dplyr (>= 1.1.3),
tidyr (>= 1.3.0), ggplot2 (>= 3.4.4)

Remotes github::eddelbuettel/drat

Additional_repositories <https://ifpri.github.io/drat>

Suggests knitr, rmarkdown

VignetteBuilder knitr

Repository <https://ifpri.r-universe.dev>

RemoteUrl <https://github.com/IFPRI/GFSir>

RemoteRef HEAD

RemoteSha a689a87b81a2c26c48c5533ad34092044817dd88

Contents

add_crops	2
add_regions	2
clean_filename	3
create_identifier_columns	4
getMapping	5
group1	5
group3	6
group4	7
group5	8
save_ggplot	8

Index	10
--------------	-----------

add_crops

add_crops

Description

add_crops

Usage

add_crops(df)

Arguments

df dataframe with "j" or "c" column

Value

Cleaned scenario name

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
add_crops()  
  
## End(Not run)
```

add_regions

add_regions

Description

add_regions

Usage

add_regions(df, mapping = "mapping.xlsx")

Arguments

df dataframe with "cty" column
mapping Mapping file for regions

Value

Cleaned scenario name

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
add_regions()  
  
## End(Not run)
```

<code>clean_filename</code>	<i>clean_filename</i>
-----------------------------	-----------------------

Description

`clean_filename`

Usage

`clean_filename(gdx)`

Arguments

`gdx` GDX file for IMPACT run

Value

Cleaned scenario name

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
clean_filename()  
  
## End(Not run)
```

```
create_identifier_columns  
    create_identifier_columns
```

Description

create_identifier_columns

Usage

```
create_identifier_columns(  
  df,  
  col = "scenario",  
  into = c("SSP", "GCM", "RCP", "CO2"),  
  sep = "-",  
  remove = TRUE  
)
```

Arguments

df	Dataframe where identifier columns need to be created
col	Columns which are "ID" and need to be separated
into	String vector with names of new columns
sep	Separator where "col" columns should be snipped for new columns.
remove	If "col" vector should be kicked out when making new columns.

Value

Cleaned scenario name

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
create_identifier_columns()  
  
## End(Not run)
```

`getMapping`*getMapping*

Description`getMapping`**Usage**`getMapping(type = "region", file = "mapping.xlsx")`**Arguments**

<code>type</code>	"region" or "crops". Region returns six CGIAR regions + developed or developing countries + world. Crops returns IMPACT mapping for crops in their more user friendly name.
<code>file</code>	mapping file name

Value

mapping according to the type selected

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
getMapping()  
  
## End(Not run)
```

`group1`*Results for population and GDP*

Description

Results for population and GDP

Usage`group1(gdx, mapping = "mapping.xlsx")`

Arguments

gdx GDX of an IMPACT run
 mapping mapping file name

Value

dataframe results for population and GDP

Author(s)

Abhijeet Mishra

Examples

```
## Not run:
group1()

## End(Not run)
```

group3	<i>Group 3 data processing (Area, yields, production, prices, net trade, demand)</i>
--------	--------------------------------------------------------------------------------------

Description

Group 3 data processing (Area, yields, production, prices, net trade, demand)

Usage

```
group3(gdx, indicator = "population", mapping = "mapping.xlsx")
```

Arguments

gdx GDX of an IMPACT run
 indicator Which indicator to return in aggregated format. Defaults to "population". Available settings are "area", "production", "yield", "prices", "trade", "demand", "population", "perCapDemand", "bluewater" and "greenwater"
 mapping mapping file name

Value

dataframe results for Area, yields, production, prices, net trade, demand

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
group3()  
  
## End(Not run)
```

group4	<i>Results for per capital kcal availability</i>
--------	--------------------------------------------------

Description

Results for per capital kcal availability

Usage

```
group4(gdx, mapping = "mapping.xlsx")
```

Arguments

gdx	GDX of an IMPACT run
mapping	mapping file name

Value

dataframe results for per capital kcal availability

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
group4()  
  
## End(Not run)
```

group5	<i>Results for population at risk of hunger</i>
--------	-------------------------------------------------

Description

Results for population at risk of hunger

Usage

```
group5(gdx, mapping = "mapping.xlsx")
```

Arguments

gdx	GDX of an IMPACT run
mapping	Mapping file for regions

Value

Results for population at risk of hunger

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
group5()  
  
## End(Not run)
```

save_ggplot	<i>save_ggplot</i>
-------------	--------------------

Description

save_ggplot

Usage

```
save_ggplot(  
  p,  
  dest = tempdir(),  
  plot_name = "dummy",  
  ext = "png",  
  units = "in",  
  width = 7,  
  height = 7,  
  dpi = 300  
)
```

Arguments

p	"plot" to be saved. Has to be a ggplot object
dest	Destination directory of the plot
plot_name	Name of the plot to be exported
ext	Extension for saving the plot. e.g "png" or "eps" etc.
units, width, height	Plot size in units ("in", "cm", "mm", or "px"). If not supplied, uses the size of current graphics device.
dpi	Plot resolution. Also accepts a string input: "retina" (320), "print" (300), or "screen" (72). Applies only to raster output types

Value

NULL. The function only saves a ggplot object

Author(s)

Abhijeet Mishra

Examples

```
## Not run:  
save_ggplot()  
  
## End(Not run)
```

Index

[add_crops](#), [2](#)
[add_regions](#), [2](#)

[clean_filename](#), [3](#)
[create_identifier_columns](#), [4](#)

[getMapping](#), [5](#)
[group1](#), [5](#)
[group3](#), [6](#)
[group4](#), [7](#)
[group5](#), [8](#)

[save_ggplot](#), [8](#)