

gen_admin.div

Create categories for administrative divisions (Perú) 2020/11/27

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Description

Function 'gen_admin.div' returns the natural, geographical, or administrative division of Perú that includes the region, province or district provided to the function.

```
gen_admin.div <- function(x, method="Traditional")
```

Arguments

- **x** is a list/vector with one of the 25 regions/departments names of Perú (first-level administrative subdivisions)
- **method** defines the type of natural, geographical, or administrative division that should be returned
 - Traditional: Coastal, Andes Mountains, Amazon Jungle, or Lima & Callao
 - TC: Administratives Macro Regions of the Constitutional Tribunal
 - Cardinal: North, South, Amazon Jungle, or Lima & Callao
 - Traditional Cardinal: Coastal and Andes Mountains are divided into North and South (e.g. South Andes Mountains)

```
gen_admin.div <- function(x,
                          method="Traditional") {
  reg.mountain.north <- c("CAJAMARCA", "AMAZONAS", "SAN MARTIN", "HUANUCO", "PASCO")
  reg.mountain.south <- c("JUNIN", "CUSCO", "PUNO", "APURIMAC", "AYACUCHO", "HUANCAVELICA")
  reg.coastal.north <- c("TUMBES", "PIURA", "LAMBAYEQUE", "LA LIBERTAD", "ANCASH")
  reg.coastal.south <- c("ICA", "AREQUIPA", "TACNA", "MOQUEGUA")

  reg.south <- c("JUNIN", "HUANCAVELICA", "ICA", "AYACUCHO", "APURIMAC",
                "AREQUIPA", "MOQUEGUA", "TACNA", "PUNO", "CUSCO")
  reg.north <- c("TUMBES", "PIURA", "LAMBAYEQUE", "LA LIBERTAD", "ANCASH",
                "CAJAMARCA", "AMAZONAS", "SAN MARTIN", "HUANUCO", "PASCO")
  reg.jungle <- c("LORETO", "UCAYALI", "MADRE DE DIOS")

  reg.tc.north <- c("ANCASH", "CAJAMARCA", "LA LIBERTAD",
```

```

      "LAMBAYEQUE", "PIURA", "TUMBES")
reg.tc.center <- c("APURIMAC", "AYACUCHO", "HUANCAVELICA",
  "HUANUCO", "JUNIN", "PASCO", "ICA")
reg.tc.south <- c("AREQUIPA", "CUSCO", "MADRE DE DIOS",
  "MOQUEGUA", "PUNO", "TACNA")
reg.tc.east <- c("AMAZONAS", "LORETO", "SAN MARTIN", "UCAYALI")

if(method=="Traditional") {

  x = replace(x, x %in% reg.jungle, "AMAZON JUNGLE")
  x = replace(x, x %in% reg.mountain.north | x %in% reg.mountain.south, "ANDES MOUNTAINS")
  x = replace(x, x %in% reg.coastal.north | x %in% reg.coastal.south, "COASTAL")
  x = replace(x, x=="CALLAO" | x=="LIMA", "LIMA & CALLAO")

} else if(method=="TC") {

  x = replace(x, x %in% reg.tc.north, "NORTH")
  x = replace(x, x %in% reg.tc.south, "SOUTH")
  x = replace(x, x %in% reg.tc.center, "CENTER")
  x = replace(x, x %in% reg.tc.east, "EAST")
  x = replace(x, x=="CALLAO" | x=="LIMA", "LIMA & CALLAO")
# Deberian ser solo los distritos de Lima, Callao, más Huarua/Cañete. Por ahora todo LIMA will do just
} else if(method=="Cardinal") {

  x = replace(x, x %in% reg.north, "NORTH")
  x = replace(x, x %in% reg.south, "SOUTH")
  x = replace(x, x %in% reg.jungle, "AMAZON JUNGLE")
  x = replace(x, x=="CALLAO" | x=="LIMA", "LIMA & CALLAO")

} else if(method=="Traditional Cardinal") {

  x = replace(x, x %in% reg.jungle, "AMAZON JUNGLE")
  x = replace(x, x %in% reg.mountain.south, "SOUTH ANDES MOUNTAINS")
  x = replace(x, x %in% reg.mountain.north, "NORTH ANDES MOUNTAINS")
  x = replace(x, x %in% reg.coastal.north, "NORTH COAST")
  x = replace(x, x %in% reg.coastal.south, "SOUTH COAST")
  x = replace(x, x=="CALLAO" | x=="LIMA", "LIMA & CALLAO")
}
return(x)
}

```

Examples

```

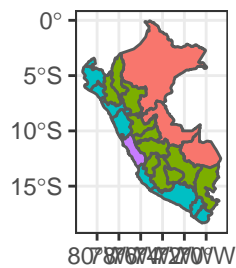
df <- data.frame(reg=c("LIMA", "CALLAO", "CAJAMARCA", "AMAZONAS", "SAN MARTIN", "HUANUCO",
  "PASCO", "JUNIN", "CUSCO", "PUNO", "APURIMAC", "AYACUCHO",
  "HUANCAVELICA", "TUMBES", "PIURA", "LAMBAYEQUE", "LA LIBERTAD",
  "ANCASH", "ICA", "AREQUIPA", "TACNA", "MOQUEGUA", "LORETO", "UCAYALI",
  "MADRE DE DIOS"),
  stringsAsFactors=F)

```

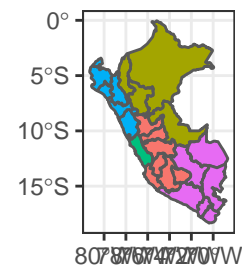
```
df %>%
  mutate(reg.Trad = gen_admin.div(reg),
         reg.TC = gen_admin.div(reg, method = "TC"),
         reg.Card = gen_admin.div(reg, method = "Cardinal"),
         reg.Trad_Card = gen_admin.div(reg, method = "Traditional Cardinal"))
```

reg	reg.Trad	reg.TC	reg.Card	reg.Trad_Card
LORETO	AMAZON JUNGLE	EAST	AMAZON JUNGLE	AMAZON JUNGLE
UCAYALI	AMAZON JUNGLE	EAST	AMAZON JUNGLE	AMAZON JUNGLE
MADRE DE DIOS	AMAZON JUNGLE	SOUTH	AMAZON JUNGLE	AMAZON JUNGLE
LIMA	LIMA & CALLAO	LIMA & CALLAO	LIMA & CALLAO	LIMA & CALLAO
CALLAO	LIMA & CALLAO	LIMA & CALLAO	LIMA & CALLAO	LIMA & CALLAO
CAJAMARCA	ANDES MOUNTAINS	NORTH	NORTH	NORTH ANDES MOUNTAINS
AMAZONAS	ANDES MOUNTAINS	EAST	NORTH	NORTH ANDES MOUNTAINS
SAN MARTIN	ANDES MOUNTAINS	EAST	NORTH	NORTH ANDES MOUNTAINS
HUANUCO	ANDES MOUNTAINS	CENTER	NORTH	NORTH ANDES MOUNTAINS
PASCO	ANDES MOUNTAINS	CENTER	NORTH	NORTH ANDES MOUNTAINS
TUMBES	COASTAL	NORTH	NORTH	NORTH COAST
PIURA	COASTAL	NORTH	NORTH	NORTH COAST
LAMBAYEQUE	COASTAL	NORTH	NORTH	NORTH COAST
LA LIBERTAD	COASTAL	NORTH	NORTH	NORTH COAST
ANCASH	COASTAL	NORTH	NORTH	NORTH COAST
JUNIN	ANDES MOUNTAINS	CENTER	SOUTH	SOUTH ANDES MOUNTAINS
CUSCO	ANDES MOUNTAINS	SOUTH	SOUTH	SOUTH ANDES MOUNTAINS
PUNO	ANDES MOUNTAINS	SOUTH	SOUTH	SOUTH ANDES MOUNTAINS
APURIMAC	ANDES MOUNTAINS	CENTER	SOUTH	SOUTH ANDES MOUNTAINS
AYACUCHO	ANDES MOUNTAINS	CENTER	SOUTH	SOUTH ANDES MOUNTAINS
HUANCAVELICA	ANDES MOUNTAINS	CENTER	SOUTH	SOUTH ANDES MOUNTAINS
ICA	COASTAL	CENTER	SOUTH	SOUTH COAST
AREQUIPA	COASTAL	SOUTH	SOUTH	SOUTH COAST
TACNA	COASTAL	SOUTH	SOUTH	SOUTH COAST
MOQUEGUA	COASTAL	SOUTH	SOUTH	SOUTH COAST

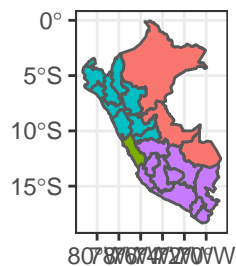
A



B



C



D

