

# Flowing Insights

## Navigating Poland's Water Consumption Landscape and Beyond

Dominik Żabiński (306068)

# Agenda

- Water consumption — who cares?
- High level of granulation data — what to do with it?
- Summary & used packages

## For the most basic needs

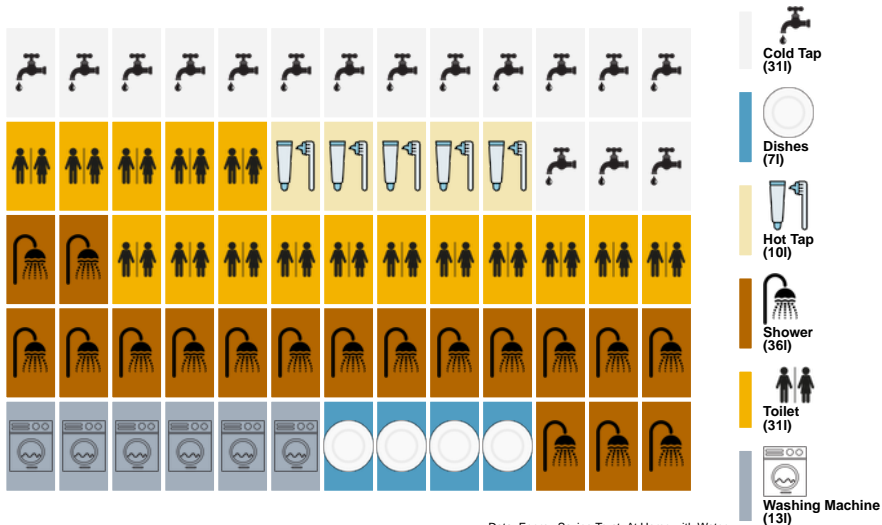
50 — 100

litres daily

Source: World Health Organization

# How do we use water daily?

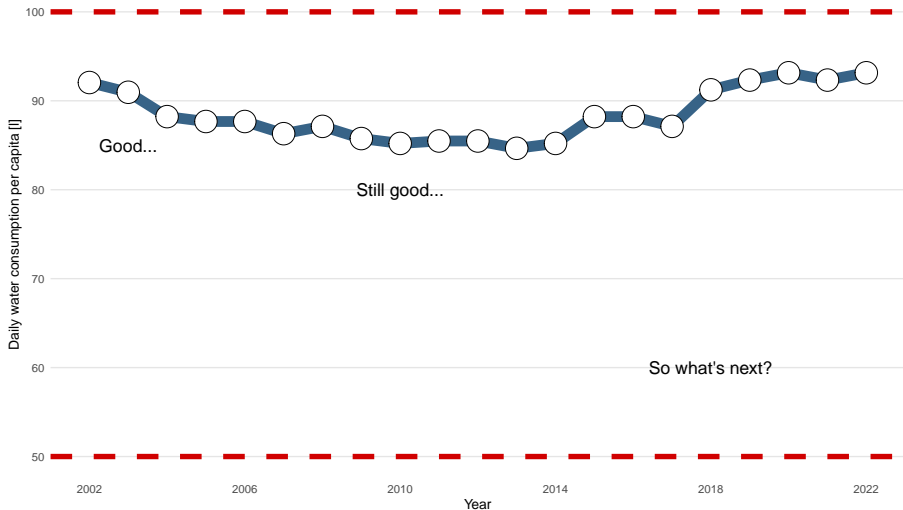
If one uses 130 l; each box represents 2l



Data: Energy Saving Trust. At Home with Water

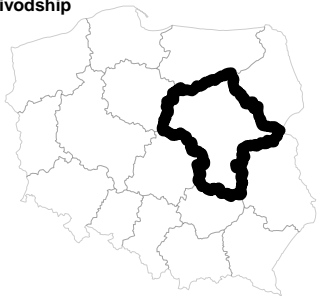
# Daily water consumption in Poland

2002 – 2022



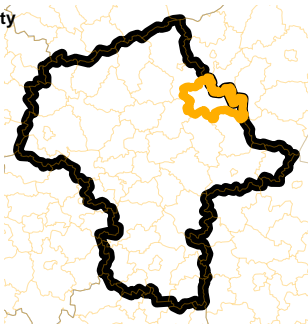
Data source: Statistics Poland

voivodship

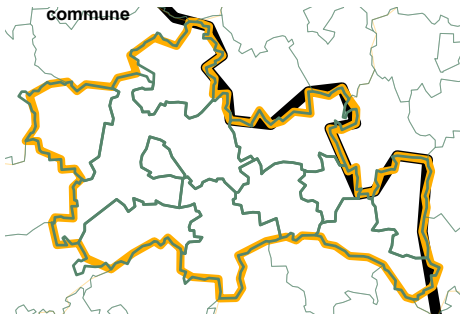


**How Polish administrative system works?**

county

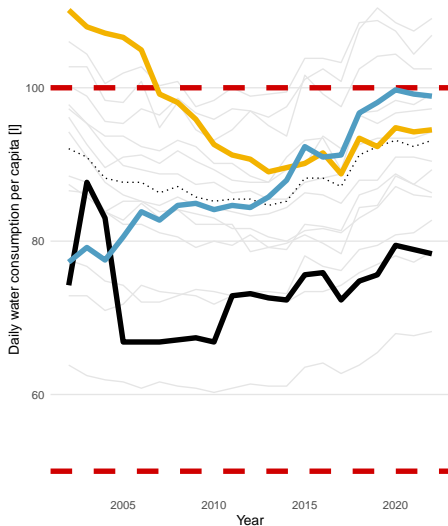


commune

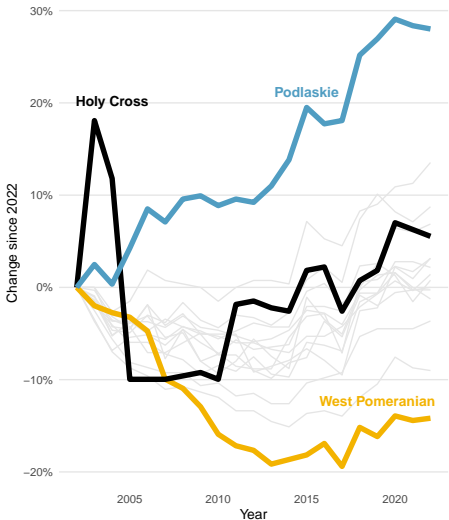


## How about voivodship regarding ...

... daily consumption?

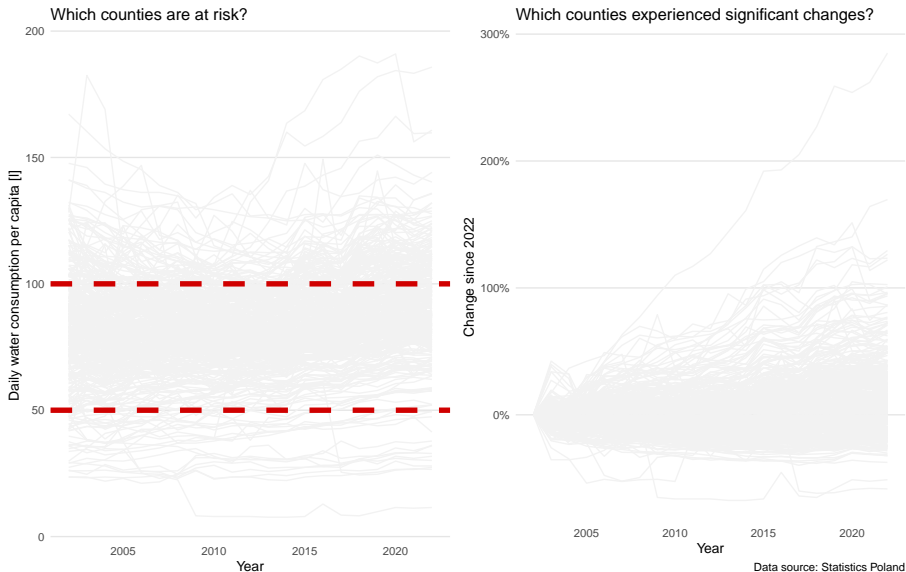


... change in the last 20 years?



Data source: Statistics Poland

## Counties – is this the best we can do?

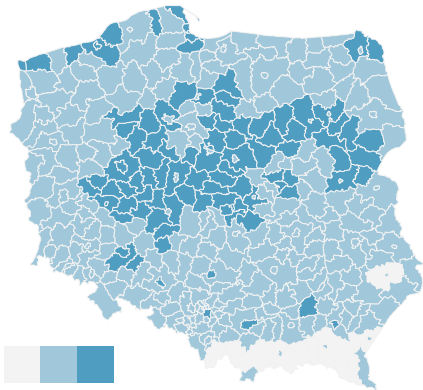




# Map to the rescue!

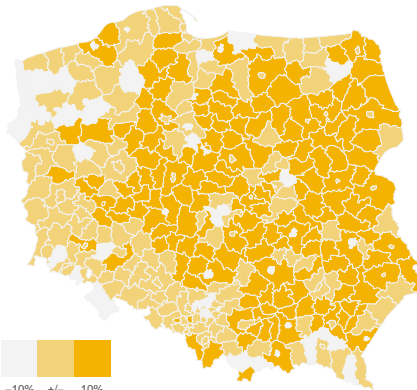
County level ...

... daily consumption



<50 50–100 100+  
Daily consumption

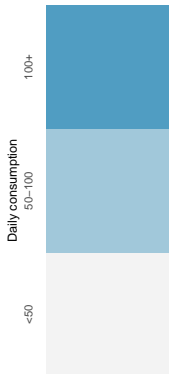
... change from 2002



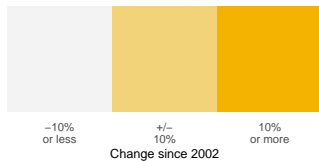
–10% +/- 10%  
or less 10% or more  
Change since 2002

# Why not both?

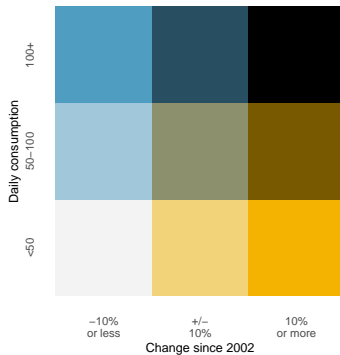
Combine daily legend ...



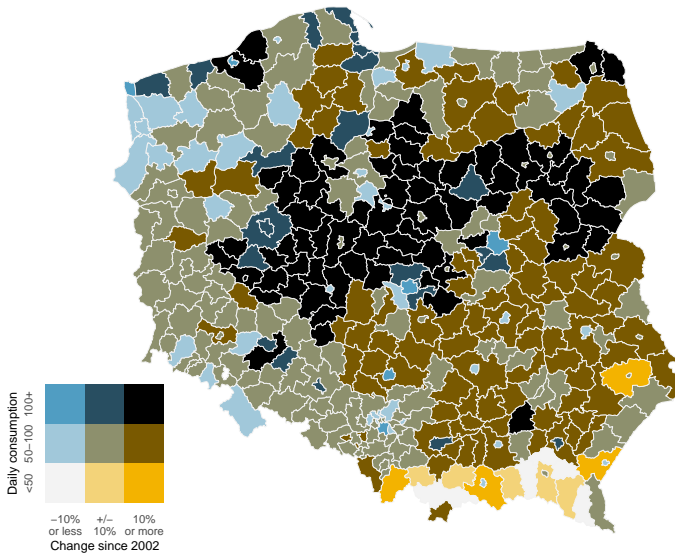
.. with change since 2002 ...



... and get combined view

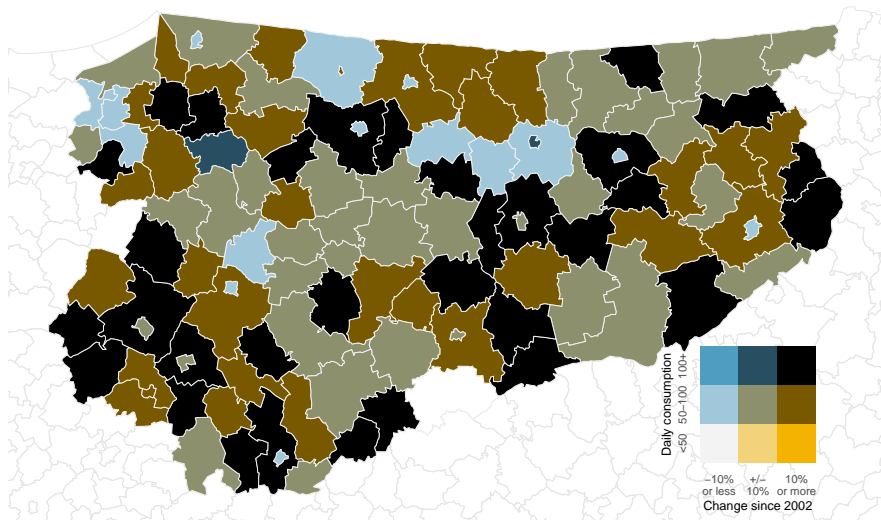


## One map to rule them all



# Communes combined

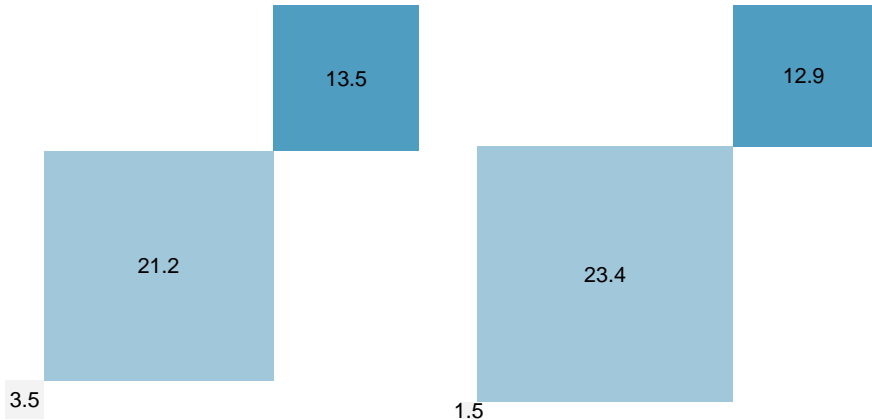
Communes in Warmia–Masuria Province



## At county level number of people at risk dropped ...

from 3 535 907 in 2002 ...

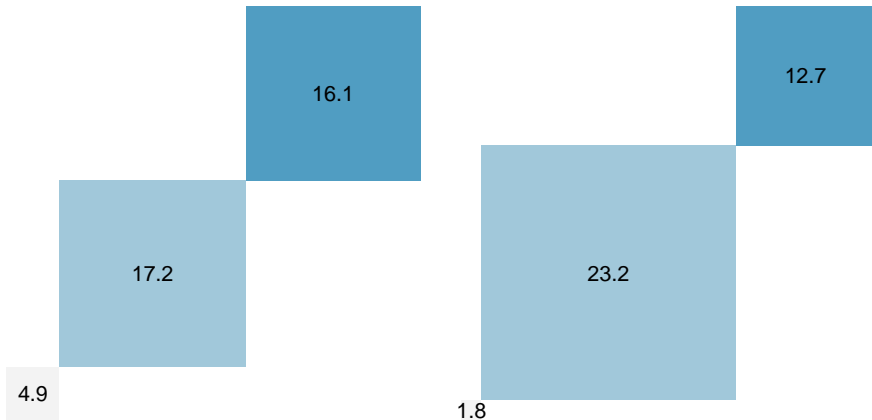
... to 1 505 422 in 2022



## At commune level number of people at risk dropped ...

from 4 871 336 in 2002 ...

... to 1 787 666 in 2022



# Summary & packages

## Summary

- drill down
- go spatial
- use weights

## Packages

- {tidyverse}
- {bdl}
- {ggbump}
- {ggtext}
- {cowplot}
- {sf}
- {rmapshaper}
- {scales}

Thank you for the attention