

research

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```
library(tidyverse)
library(readr)
library(kableExtra)
```

Research questions

Rice consumption vs. latitude and region, 2015

Data

```
Assignment4_data <- read_csv("Data/rice-consumption-vs-latitude.csv")
data_tidy <- Assignment4_data %>%
  filter(Year == 2015)%>%
  rename(`Rice consumption(kg/capita/yr)` = `Rice (Milled Equivalent) - Food supply quantity (kg/capita/yr)`) %>%
  rename(Latitude = `Latitude - lp_lat_abst`)

data_tidy <- data_tidy %>% drop_na(`Rice consumption(kg/capita/yr)`) %>% drop_na(Latitude)
```

Analysis

```
knitr::kable(
  head(arrange(data_tidy, desc(`Rice consumption(kg/capita/yr)`)),10), caption = 'Top 10 countries with the highest annual per capita consumption of rice in 2015',
  booktabs = TRUE, digits = 2
) %>%
kable_styling(latex_options = c("striped", "hold_position"))
```

Top 10 countries with the highest annual per capita consumption of rice in 2015

Entity	Code	Year	Rice consumption(kg/capita/yr)	Latitude	Continent
Bangladesh	BGD	2015	265.55	0.27	Asia
Laos	LAO	2015	255.64	0.20	Asia
Cambodia	KHM	2015	239.70	0.14	Asia
Vietnam	VNM	2015	218.73	0.18	Asia
Indonesia	IDN	2015	211.79	0.06	Asia
Myanmar	MMR	2015	184.80	0.24	Asia

Entity	Code	Year	Rice consumption(kg/capita/yr)	Latitude	Continent
Sierra Leone	SLE	2015	184.36	0.09	Africa
Thailand	THA	2015	176.85	0.17	Asia
Philippines	PHL	2015	170.10	0.14	Asia
Sri Lanka	LKA	2015	163.80	0.08	Asia

```
ggplot(data = data_tidy,
aes(x = Latitude,
    y = `Rice consumption(kg/capita/yr)`)) +
  geom_point(aes(colour = Continent)) +
  geom_point(data = data_tidy,
    size = 2,
    shape = 1)+
  theme_bw()+
  ggtitle("Distribution of countries in different geographic regions in terms of Latitude")
```

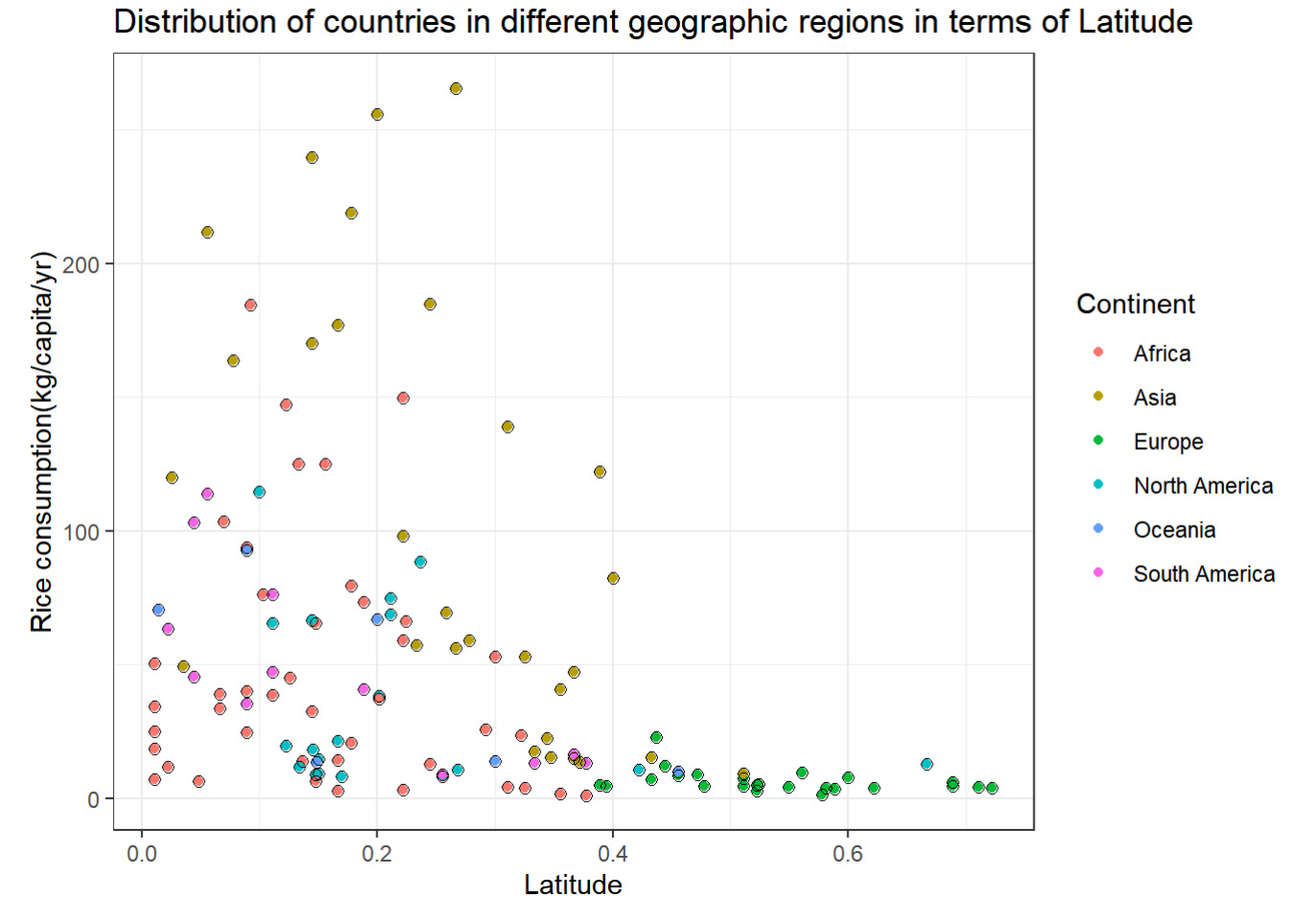


Table 1 ranks all the Annual per capita consumption of rice in different countries in 2015 in descending order, while Figure 1 plots the distribution by Latitude and the geographical region to which the country belongs.

According to Table 1, the top 5 countries with the largest rice consumption are Bangladesh, Laos, Cambodia, Vietnam, In combination with Figure 1, it is easy to notice the phenomenon that the countries with higher Annual per capita consumption of rice are mainly in the Latitude between 0 and 0.4. Also, when looking at the color of the points, it can be seen that the points representing higher rice consumption represent the map areas of Africa and Asia.