World food waste analysis (SQL)

Federico Trotta

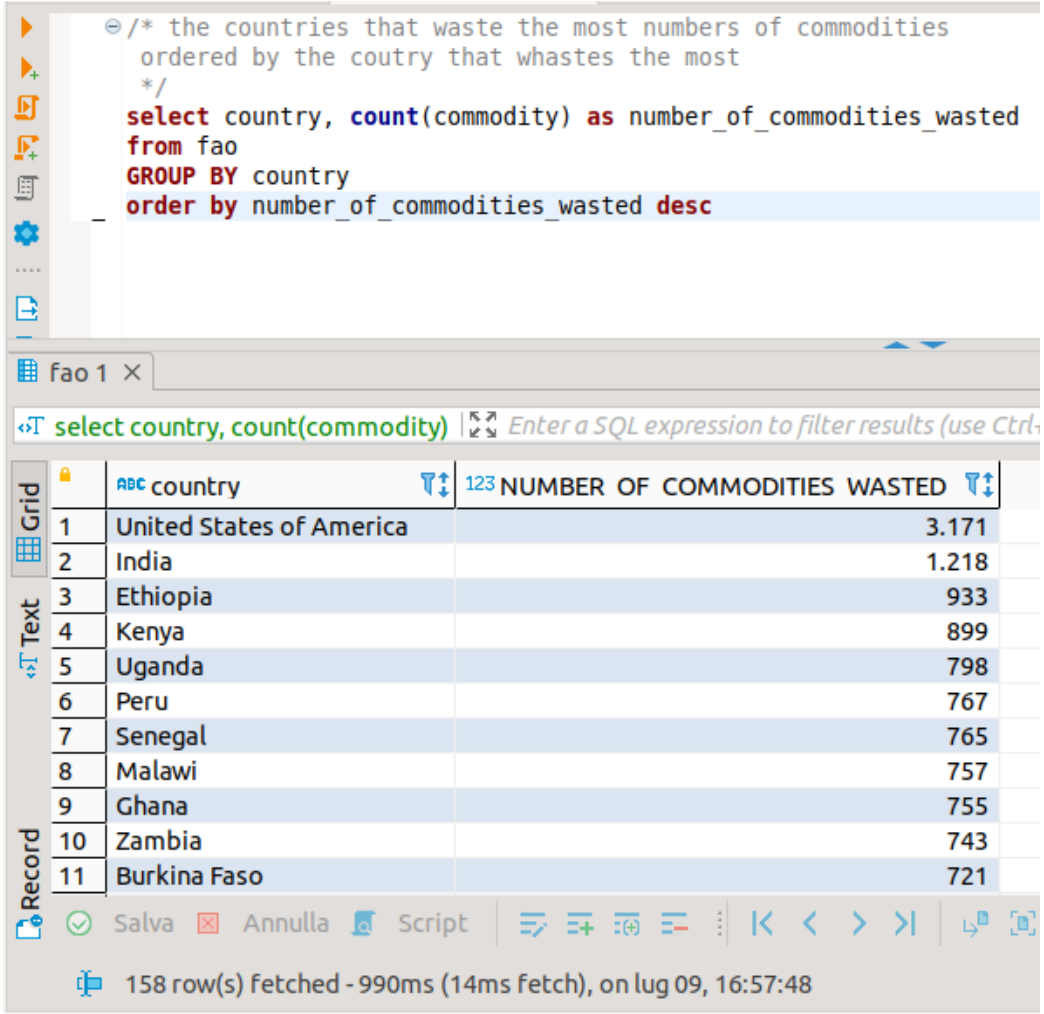
SQL PROJECT

Description of the project

THE IDEA:
create a startup that aims to reduce food waste in some particular area of the world

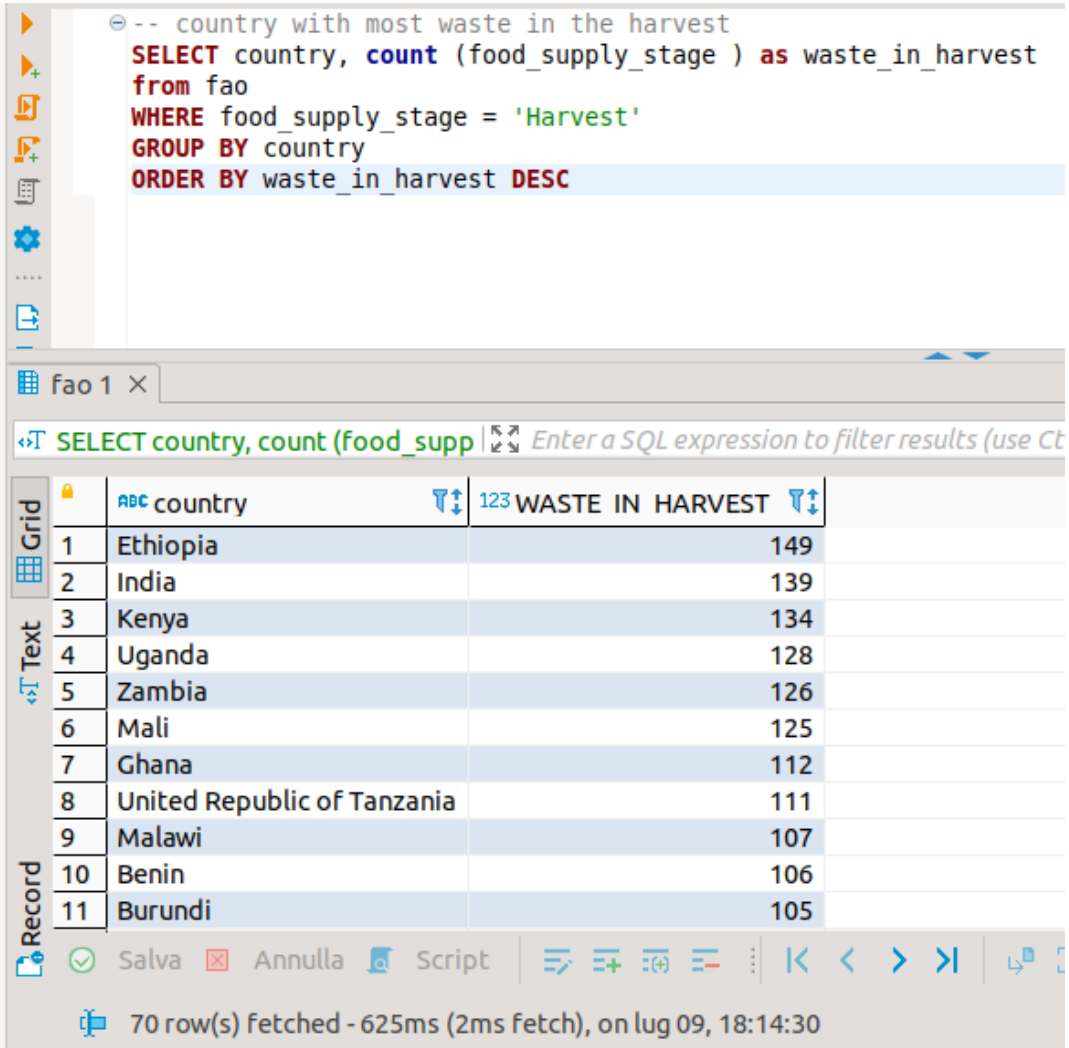
BUSINESS ANALYSIS:
identify the areas in the world that have the greatest food waste and then understand how to reduce waste

States that waste multiple different types of food



	country	NUMBER OF COMMODITIES WASTED
1	United States of America	3.171
2	India	1.218
3	Ethiopia	933
4	Kenya	899
5	Uganda	798
6	Peru	767
7	Senegal	765
8	Malawi	757
9	Ghana	755
10	Zambia	743
11	Burkina Faso	721

It is not strange that the US is the state that wastes more types of food than anyone in the world.
On the other hand, I was intrigued by the fact that on this list there are several African states; to create a startup that deals with eliminating food waste in the world it is necessary to understand not only in which states there is more waste, but also where this waste is located (in the supply chain? during the harvest?)



States with higher crop waste

As expected, many African states have a lot of crop waste.

A startup idea could be to help some states, among those that have the most crop waste, to eliminate this waste (perhaps, with the mechanization of work)

States with higher crop waste

```sql
/* countries with loss_percentage > 7 in Harvest,
 after the year 2015 */
SELECT country, food_supply_stage, loss_percentage, year
from fao
WHERE food_supply_stage = 'Harvest'
AND loss_percentage > '7'
AND "year" > '2015'
ORDER by loss_percentage DESC
```

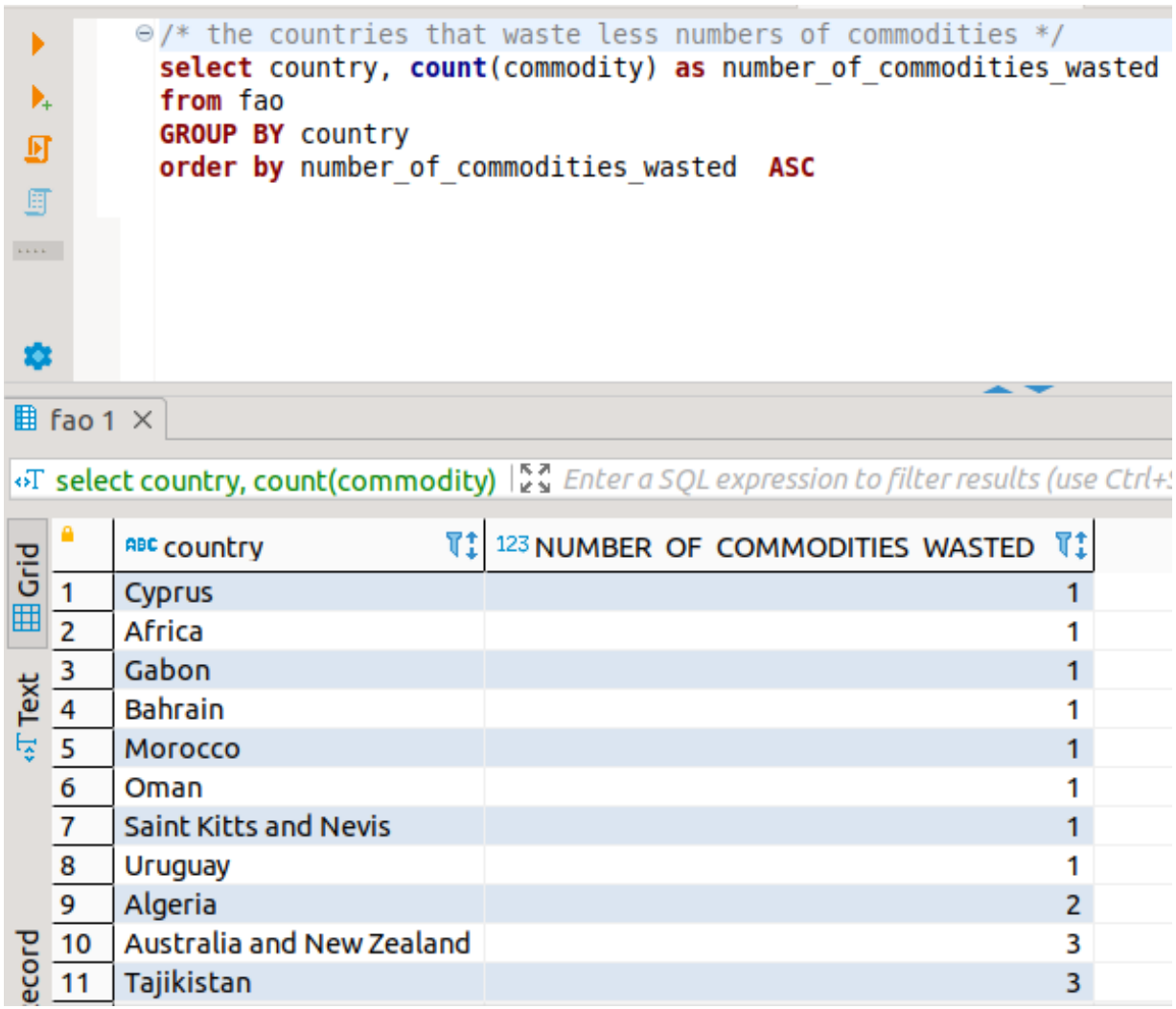
1 ×

.ECT country, food_supply_stag | Enter a SQL expression to filter results (use

country	food_supply_stage	loss_percentage	yea
Burkina Faso	Harvest	9.98	2016
Senegal	Harvest	9.86	2016
Senegal	Harvest	8.66	2016
Mexico	Harvest	8	2016
India	Harvest	7.63	2016

Deepening, we can go and look for those countries that, for example, have a percentage of waste greater than 7%, after 2015.

We could therefore choose Burkina Faso which had a peak of waste in 2016.



The most virtuous states

It is not credible that there have been states that present only one type of wasted food: there is probably a lack of data.
To identify the truly virtuous states I would say that a good value is on the 10 different types of wasted food, for which Cyprus is among the most virtuous.

```sql
SELECT country, commodity, loss_percentage, food_supply_stage, year
from fao
WHERE loss_percentage = '9.99'
ORDER by "year" DESC
```

fao 1

SELECT country, commodity, loss_p | Enter a SQL expression to filter results (use Ctrl+Space)

Grid | Text | Record

	country	commodity	loss_percentage	food_supply_stage	year
1	Chad	Wheat	9.99	Whole supply chain	2016
2	Norway	Potatoes	9.99	Whole supply chain	2015
3	Venezuela (Boli	Oranges	9.99	Whole supply chain	2010
4	Cuba	Onions and shallots, dry (excluding dehydrated)	9.99	Whole supply chain	2007
5	Panama	Beans, dry	9.99	Whole supply chain	2006
6	Panama	Beans, dry	9.99	Whole supply chain	2004
7	Panama	Pigeon peas, dry	9.99	Whole supply chain	2000
8	Denmark	Potatoes	9.99	Whole supply chain	1999
9	Israel	Refined sugar	9.99	Whole supply chain	1997
10	Panama	Beans, dry	9.99	Whole supply chain	1997
11	Panama	Pigeon peas, dry	9.99	Whole supply chain	1996

The most wasted food

The maximum percentage of the waste is 9.99% and the most wasted food, in recent times (2016), is wheat in Chad where waste is present throughout the supply chain.

Conclusions

If we want to commit ourselves to find a solution to food waste around the world, these data can give us a starting point to be able to move.

The commitment of a hypothetical startup could be to choose between:
- focus on waste, for example at the crop level, taking into account a percentage of waste greater than 7%. In this case, Burkina Faso turns out to be a state to be attentive to and in which to deepen the analysis to understand how and where to intervene; also because it presents these percentages of waste in recent times (2016).
- focus on the maximum percentage of waste (9.99%) in recent times (2016), for which it appears that the candidate state is Chad, which has wasted the maximum percentage of wheat detected, and the waste is widespread throughout the supply chain.

Probably, the challenge to solve the problem in Chad would be more difficult than in Burkina Faso because the waste in Burkina Faso is at the crop level, so perhaps mechanization of work could solve the problem; while in Chad waste is throughout the supply chain, so in addition to needing a more in-depth analysis, various means are certainly needed to solve the problem.