CSCI E-79
Spring 2019

Week 1 - Topic

Who eats the food we grow?

Worldwide food\feed production and distribution, 1961-2013

Context

The Food and Agriculture Organization of the United Nations provides free access to food and agriculture data for over 245 countries and territories, from the year 1961 to the most recent update. One dataset from the FAO's database is the Food Balance Sheets. It presents a comprehensive picture of the pattern of a country's food supply during a specified reference period, the last time an update was loaded to the FAO database was in 2013. The food balance sheet shows for each food item the sources of supply and its utilization.

Project source: here

Data

Area	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	TOTAL
China	1939061	1993873	2019362	2087975	2183081	2225874	2308836	2378139	2454912	2499252	22090365
India	892889	923028	985943	1043677	1085868	1089253	1139043	1175435	1200891	1238335	10774362
USA	634991	628442	630314	636954	627922	630226	628586	625116	643044	641776	6327371
Brazil	259529	261759	272143	276176	290742	295670	313681	327899	315024	312488	2925111
Russia	231215	240570	245278	252448	253457	252070	251155	254777	256646	253892	2491508
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France	122387	120022	119997	120816	119669	121545	120671	121800	119281	120542	1206730
Iran	105314	113431	109944	112773	109642	115257	114278	118740	120682	122793	1142854
Bangladesh	88432	92638	94717	98057	101921	103241	109365	110212	111573	114184	1024340
Philippines	80839	82394	83904	88935	91480	94766	97756	97801	99614	100429	917918
Viet Nam	76724	78386	78283	82369	84200	87080	90451	91214	103344	105399	877450

Analysis & Facts

Our world population is expected to grow from **7.3 billion** today to **9.7 billion** in the year **2050**. Finding solutions for feeding the growing world population has become a hot topic for food and agriculture organizations, entrepreneurs and philanthropists. These solutions range from changing the way we grow our food to changing the way we eat. The excerpt above presents *the head and the tail* of the aggregated food producers table.

FAO's database also provides an insight on our worldwide food production, focusing on a comparison between *food produced for human consumption* and *feed produced for animals* (more data: here). There is a huge difference in food and feed production, making the **food count** almost **6 times larger** than the **feed count**.

Doing even deeper inspection, researchers concluded that China, India and US stand out here. Moreover, the difference in food and feed count observing these 3 countries would be like this:

1. China (**food: 110, feed: 39**)
2. India (**food: 113, feed: 23**)
3. USA (**food: 101, feed: 37**)

The Task

Taking into an account above mentioned facts (feel free to explore more resources on this topic), sketch at least 3 visualizations. Focus on what you have learned in your Lab 1. Finding a proper visualization to communicate the findings is not an easy task. Once you have all your visualizations ready, try to put them in one frame, creating visual dashboard (architecture), making sure the visual message is telling a clear (and interesting) story.

The details regarding your work submission will be posted on Piazza. Good luck!