**Resources overview:**

**>Resources:** WorldBank, Foastat, CropCalender, Vifa, IfaStat, [www.tradingeconomics.com](http://www.tradingeconomics.com/), IMF API, hdr.undp.org, [www.coface.com](http://www.coface.com/), IMF Data sets, Trade map website

**>Flow:**

- Trade map website

-- scrapped

- WorldBank

-- python library script

- Foastat

-- "fetch api (scrapped request url)" aka link based request that returns a json (request may timeout) (can't get large amount of data exp:import/export data per country)

- CropCalender

-- "fetch api (scrapped request url)" aka link based request that returns a json

- Vifa

-- "fetch api (scrapped request url)" aka link based request that returns a json (request may timeout)

- IfaStat

-- "fetch api (scrapped request url)" aka link based request that returns a json

- [www.tradingeconomics.com](http://www.tradingeconomics.com/)

-- scraping

- IMF

-- api link (public api)

- IMF Data sets

-- Download

- hdr.undp.org

-- scraping

- [www.coface.com](http://www.coface.com/)

-- scraping

- the excel files

-- parsed/filtered and turned into json files

-- external data affected to rows (such as geolocations), changed filtered data through given constraints by ziad, some data transformed into others (such as naming country swapped to other names), update one data set can be done through multiple file formats, files merged based on constraints

**>Questions:**

- Can we script on tableau (calculating projection for example)

- Can we integrate a pyton library on tableau and use it for api calls

- If we have files how can we auto update them (is there a way to replace the file source with a server copy or some ftp)

- Can we have a filter pipeline, that would differ depending on what file we give it (files have the same data but different parsing methods depending on the source)

**Data Catalogue:**

**RED : DATA TYPE**

**GREEN : TOPICS**

**BLUE : SUBTOPICS**

**<AGRICULTURE DATA>**

**>Land Use Data:**

* --- Overview:

---- Total Land Area (sq. km) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Rural Land Area (sq. km) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Urban Land Area (sq. km) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Agricultural Land:

---- Agricultural Land (sq. km) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Agricultural Land (% of land area) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Arable Land:

---- Arable Land (hectares) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Arable Land per Person (hectares) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Arable Land (% of land area) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Irrigated Agriculture:

---- Agricultural Irrigated Land (% of Total Agricultural Land) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Climate Data:

---- Average Precipitation (mm per year) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Environmental Data:

---- Forest Area (% of Land Area) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Carbon Stock in Living Biomass | (Data source: Foastat, Access type: API, Auto update bool: True)

* --- Share Data:

---- Share in Agricultural Land | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Share in Land Area | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Share in Forest Land | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Share in Cropland | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Area per Capita | (Data source: Foastat, Access type: API, Auto update bool: True)

**>Crops Data:**

* --- Crop Statistics:

---- Area Harvested per Crop (hectares) | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Yield per Crop (kg per hectare) | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Production Quantity per Crop | (Data source: Foastat, Access type: API, Auto update bool: True)

* --- Production Index and Value:

---- Gross Production Index (2014-2016 = 100) | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Gross Production Value (current thousand US) | (Data source: Foastat, Access type: API, Auto update bool: True)

* --- Cash and Staple Crops:

---- Main Cash Crops per Country | (to be calculated)

---- Main Staple Crops per Country | (to be calculated)

* --- Crops Calendar:

---- Main Crops Calendar per Country | (Data source: CropCalender, Access type: API, Auto update bool: True)

**>Trade Profile:**

* --- Imports and Exports of Agricultural Products per Year:

---- Import Value and Quantity | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Export Value and Quantity | (Data source: Foastat, Access type: API, Auto update bool: True)

* --- Import Data:

---- Import Value and Quantity total | (Data source: Foastat, Access type: API, Auto update bool: True) (to be discussed)

---- Fertilizers Total Import Volumes by Country Over Time | (Data source: Vifa, Access type: API, Auto update bool: True)

---- Fertilizers Annual Import Volumes by Product | (Data source: Vifa, Access type: API, Auto update bool: True)

* --- Export Data:

---- Export Value and Quantity total | (Data source: Foastat, Access type: API, Auto update bool: True) (to be discussed)

---- Fertilizers Total Export Volumes by Country Over Time | (Data source: Vifa, Access type: API, Auto update bool: True)

---- Fertilizers Annual Export Volumes by Product | (Data source: Vifa, Access type: API, Auto update bool: True)

* --- Fertilizer Production:

---- Total Fertilizer Production Volumes by Country Over Time | (Data source: Vifa, Access type: API, Auto update bool: True)

---- Fertilizers Historical International Price Trends | (Data source: Vifa, Access type: API, Auto update bool: True)

**>Fertilizers:**

* --- Fertilizer Consumption:

---- Fertilizer Consumption (kg per hectare of arable land) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Fertilizer Consumption by nutrient per country each year | (Data source: IfaStat, Access type: API, Auto update bool: True)

* --- Country-wise Fertilizer Data:

---- Apparent Fertilizer Consumption by Country | (Data source: Vifa, Access type: API, Auto update bool: True)

---- National Average Fertilizer Consumption | (Data source: Vifa, Access type: API, Auto update bool: True)

* --- Nutrient Data:

---- Production Quantity by Nutrient | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Import Quantity by Nutrient | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Export Quantity by Nutrient | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Agricultural Use by Nutrient | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Use by Nutrient per Area of Cropland | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Use by Nutrient per Value of Agricultural Production | (Data source: Foastat, Access type: API, Auto update bool: True)

* --- Product Data:

---- Production Quantity by Fertilizer Product | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Import Quantity by Fertilizer Product | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Export Quantity by Fertilizer Product | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Import Value by Fertilizer Product | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Export Value by Fertilizer Product | (Data source: Foastat, Access type: API, Auto update bool: True)

---- Agricultural Use by Fertilizer Product | (Data source: Foastat, Access type: API, Auto update bool: True)

**<SOCIO-ECONOMIC DATA>**

**>Economic Data:**

* --- Gross Domestic Product (GDP):

---- GDP (current US$) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- GDP growth (annual %) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- GDP per capita (current US$) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Foreign Investment and Inflation:

---- Foreign direct investment, net inflows (% of GDP) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Inflation, consumer prices (annual %) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Purchasing Power Parity (PPP):

---- GDP, PPP (current international $) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- PPP conversion factor, GDP (LCU per international $) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Human development index:

---- HDI | (file type : CSV, data-source: hdr.undp.org, type of access: File, automatic update: YES)

**>Finance and Grants:**

* --- International Monetary Fund (IMF) and Debt:

---- Use of IMF credit (DOD, current US$) (IMF Used Credit) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Gross public debt, percent of GDP (IMF) | (file type : json, data-source: IMF, type of access: API, automatic update: YES)

---- Credit risk | (file type : json, data-source: <https://tradingeconomics.com/country-list/rating>, type of access: Scraping, automatic update: YES)

* --- Official Reserves and Assistance:

---- Official reserves assets | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Official Reserve Assets IMF | (Data source: IMF, Access type: file, Auto update bool: False)

---- Net official development assistance received (current US$) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Grants and other revenue (% of revenue) | (Data source: WorldBank, Access type: API, Auto update bool: True)

**>Agriculture/Economic Data:**

* --- Agricultural and Economic Metrics:

---- SSR (production / (production + (imports - exports))) | (calculated fields)

---- Surface area (sq. km) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Agriculture, forestry, and fishing, value added (% of GDP) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Risk Assessment | (Data source: <https://www.coface.com/Economic-Studies-and-Country-Risks/Comparative-table-of-country-assessments/(geo)/681> , Access type: file, Auto update bool: True)

**>Population Data:**

* --- Population Metrics:

---- Population, total | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Population, female (% of total population) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Population, male (% of total population) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Employment and Education:

---- Employment in agriculture, female (% of female employment) (modeled ILO estimate) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Employment in agriculture, male (% of male employment) (modeled ILO estimate) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Employment in agriculture (% of total employment) (modeled ILO estimate) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Educational attainment, at least completed primary, population 25+ years, female (%) (cumulative) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Educational attainment, at least completed primary, population 25+ years, male (%) (cumulative) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Educational attainment, at least completed primary, population 25+ years, total (%) (cumulative) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Age Demographics and Labor Force:

---- Population ages 15-64, total | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Population ages 0-14, total | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Population ages 65 and above, total | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Labor force, total | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Labor force, female (% of total labor force) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Urban and Rural Population:

---- Urban population (% of the total population) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Rural population (% of total population) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Urban population growth (annual %) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Population Growth and Food Security:

---- Population growth (annual %) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Prevalence of undernourishment (% of the population) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Prevalence of moderate or severe food insecurity in the population (%) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Unemployment:

---- Unemployment, female (% of female labor force) (modeled ILO estimate) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Unemployment, male (% of male labor force) (modeled ILO estimate) | (Data source: WorldBank, Access type: API, Auto update bool: True)

---- Unemployment, total (% of total labor force) (modeled ILO estimate) | (Data source: WorldBank, Access type: API, Auto update bool: True)

**>Political Instability and Logistics Index:**

* --- Political Stability and Absence of Violence/Terrorism:

---- Political Stability and Absence of Violence/Terrorism: Estimate | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- fragile index:

---- fragile index | (Data source: fragile state index, Access type: file, Auto update bool: True) | (Data source: WorldBank, Access type: API, Auto update bool: True)

* --- Logistics Index:

---- Logistics performance index: Quality of trade and transport-related infrastructure (1=low to 5=high) | (Data source: WorldBank, Access type: API, Auto update bool: True)

**<Strategy Data>**

**>trading data**

--- Imports / Exports data (TradeMap)

**>the excel files**

--- Blending plants Africa[1].xlsx

--- CRU FERTILIZER WEEK-Historical Prices Averages-Weekly Report (20230707)-60431[1].xlsx

--- Fertilizer Week Premium - report[1].xlsx

--- Potential consumption (Abuja + Agronomy)[1].xlsx

--- Prod capacities Africa 23.xlsx

--- Sales 13-23[1].xlsx

--- Bcg\_Files

--- Life\_moz\_interactive\_map.csv