### How to prepare detailed Muskoka2 analyses of aid for RMNCH in a single country

Webinar recorded Tuesday 27 July, 2021

on behalf of the Countdown to 2030 Health Financing Data Analysis Centre



with Peter Binyaruka & Josephine Borghi



### Aim



To show how to prepare and use a Muskoka2 Country-Specific Excel Workbook to allow more detailed analyses of aid for

**RMNCH** in individual countries

This webinar is designed to follow two previous webinars from the Health Financing Data Analysis Centre – please watch them first!

Future webinars will discuss domestic financing and equity

**Health Financing Analysis for Annual Reviews** 

Josephine Borghi, Catherine Pitt, Melisa Martinez-Alvarez, Peter Binyaruka, Federica Margiani



How to use and adapt the Muskoka2 global estimates of aid for RMNCH for analyses of individual countries

Webinar recorded Monday 26 July, 2021

on behalf of the Countdown to 2030 Health Financing Data Analysis Centre

Catherine Pitt

OFFICIAL WITH Peter Binyaruka, Josephine Borghi, Ties Boerma

### Overview of this webinar



Muskoka2 Country-Specific Workbooks vs. Muskoka2 Global Workbook

- Walk through how to prepare a detailed Muskoka2 Uganda workbook (using OECD CRS website and Excel)
  - Preparing the Muskoka2 Country-Specific Excel Workbook
  - Downloading and preparing raw CRS data
  - Transferring the raw CRS data into the Muskoka2 Excel Workbook
  - Preparing analyses and figures

### Raw data on external financing: the CRS



- The Organization for Economic Co-operation and Development maintains the Creditor Reporting System (CRS), the main source for external financing – or "aid" data
- Data are reported by:
  - 49 bilateral (i.e. country) donors
  - 42 multilateral donors (i.e. institutions such as UN agencies)
  - 36 private donors
- Relatively complete data for years 2002-19; more complete in more recent years
- 200,000 300,000 data points <u>per year</u> (!!)
- Covers <u>all</u> sectors (not just health)
- The CRS categorises aid for the health, water and sanitation, and humanitarian sectors according to sub-sectoral areas . . . but NOT in ways that permit straightforward estimates of aid for RMNCH

### Muskoka2 estimates of aid for RMNCH



- Muskoka2 is an <u>algorithm</u> applied to the CRS database
- Generates estimates of the monetary value of aid for:
  - Maternal and newborn health
  - **Child health** (age 1-59 months)
  - Reproductive health (of non-pregnant women)
- Includes aid *directed towards* reproductive health and family planning, but also relevant shares of aid directed towards HIV, malaria, TB, basic health care, health systems, water and sanitation, humanitarian aid, and general budget support > recognises the value of the wider health system in promoting RMNCH
- Accessible as an Excel workbook

### Estimates of aid for reproductive, maternal, newborn, and child health: findings from application of the Muskoka2 method, 2002-17





Antonia Dingle, Marco Schäferhoff, Josephine Borghi, Miriam Lewis Sabin, Leonardo Arregoces, Melisa Martinez-Alvarez, Catherine Pitt

Background Four methods have previously been used to track aid for reproductive, maternal, newborn, and child health (RMNCH). At a meeting of donors and stakeholders in May, 2018, a single, agreed method was requested to 8:e374-86 produce accurate, predictable, transparent, and up-to-date estimates that could be used for analyses from both donor Published Online and recipient perspectives. Muskoka2 was developed to meet these needs. We describe Muskoka2 and present estimates of levels and trends in aid for RMNCH in 2002-17, with a focus on the latest estimates for 2017.

Methods Muskoka2 is an automated algorithm that generates disaggregated estimates of aid for reproductive health, maternal and newborn health, and child health at the global, donor, and recipient-country levels. We applied Muskoka2 to the Organisation for Economic Co-operation and Development's Creditor Reporting System (CRS) aid activities (A Dingle PhD, J Borghi PhD database to generate estimates of RMNCH disbursements in 2002-17. The percentage of disbursements that benefit RMNCH was determined using CRS purpose codes for all donors except Gavi, the Vaccine Alliance; the UN Population CPitt MSc) and Medical Fund; and UNICEF; for which fixed percentages of aid were considered to benefit RMNCH. We analysed funding by Research Council Unit in The donor for the 20 largest donors, by recipient-country income group, and by recipient for the 16 countries with the Gambia (MMartinez-Alvarez) greatest RMNCH need, defined as the countries with the worst levels in 2015 on each of seven health indicators.

Findings After 3 years of stagnation, reported aid for RMNCH reached \$15.9 billion in 2017, the highest amount ever reported. Among donors reporting in both 2016 and 2017, aid increased by 10% (\$1.4 billion) to \$15.4 billion between and Partnership for Maternal, 2016 and 2017. Child health received almost half of RMNCH disbursements in 2017 (46%, \$7.4 billion), followed by reproductive health (34%, \$5 · 4 billion), and maternal and newborn health (19%, \$3 · 1 billion). The USA (\$5 · 8 billion) and the UK (\$1.6 billion) were the largest bilateral donors, disbursing 46% of all RMNCH funding in 2017 (including (M.Lewis Sabin PhD) shares of their core contributions to multilaterals). The Global Fund and Gavi were the largest multilateral donors, Correspondence to: disbursing \$1.7 billion and \$1.5 billion, respectively, for RMNCH from their core budgets. The proportion of aid for Ms Catherine Pitt, Departmen RMNCH received by low-income countries increased from 31% in 2002 to 52% in 2017. Nigeria received 7% of Global Health and (\$1.1 billion) of all aid for RMNCH in 2017, followed by Ethiopia (6%, \$876 million), Kenya (5%, \$754 million), and

Interpretation Muskoka2 retains the speed, transparency, and donor buy-in of the G8's previous Muskoka approach and incorporates eight innovations to improve precision. Although aid for RMNCH increased in 2017, low-income and middle-income countries still experience substantial funding gaps and threats to future funding. Maternal and newborn health receives considerably less funding than reproductive health or child health, which is a persistent issue requiring urgent attention.

Funding Bill & Melinda Gates Foundation; Partnership for Maternal, Newborn & Child Health.

Copyright © 2020 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

In the push towards universal health coverage, focused targeted to need, and effective efforts are needed to ensure that reproductive, maternal, newborn, and child health (RMNCH) receives adequate been used and compared:5 the G8 Muskoka method,6 funding. Although domestic and non-traditional health the Countdown to 2015 approach,7 the Institute for financing sources have rightly received increased Health Metrics and Evaluation (IHME) approach,8 attention in recent years,12 aid remains important, and the Organisation for Economic Co-operation and particularly for low-income countries,3 and is a key pillar Development (OECD) RMNCH policy marker.9 Although in achieving the ambitious targets of the Every Woman all of these approaches are designed to measure aid for Every Child Global Strategy for Women's, Children's and RMNCH, their methods and estimates vary substantially. Adolescents' Health (2016-2030). Estimates of aid for As previously described, any aid tracking approach

accountable and to assess whether aid is sufficient

Four methods to track aid for RMNCH have previously RMNCH can be used to hold donors and recipients comprises "trade-offs between simplicity, timeliness,

https://doi.org/10.1016 52214-109X(20)30005-7

Development, London School of

www.thelancet.com/lancetgh Vol 8 March 2020

### The Muskoka 2 Global dataset



- Muskoka2 "Global" dataset includes key data for all recipients (i.e. millions of records)
  for the 2002-19 period, summarized into an Excel dataset of ~230,000 records
- Indicators produced:
  - > Total aid for . . .
    - > RH
    - > MNH
    - > CH
    - > RMNCH
  - Aid per relevant population:
    - Aid for RH per woman of reproductive age
    - ➤ Aid for MNH per birth
    - > Aid for CH per child under 5

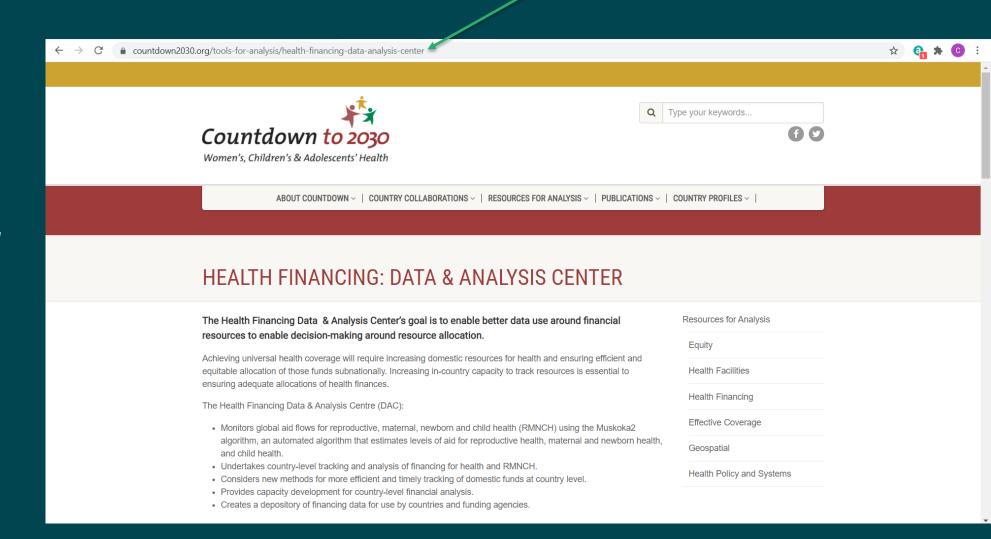
- Estimates disaggregated by:
  - Year
  - Donor
  - Recipient country or region
  - Sub-sectoral "purpose"
  - Flow type (ODA\* grants, ODA\* loans, private)

### The Muskoka 2 Country dataset: Uganda



- Slight variation on the global dataset, allowing more in-depth exploration
- Includes <u>all records</u> and <u>all variables</u> from the CRS for a single recipient (i.e. Uganda):
   ~32,000 records for Uganda for the period 2010-19
  - > Vastly fewer records than the <u>~230,000</u> records in the full Global Workbook
  - ➤ However, contains many <u>additional variables</u>, including:
    - Project title
    - Short description
    - Long description
    - Channel of delivery (Recipient gov't, local NGO, INGO, UN, etc)
    - Modality (Project, basket funds, sector budget support, general budget support, etc)
- NB: Muskoka2 estimates designed to be reasonably accurate for individual countries and years, but not down to the level of individual projects





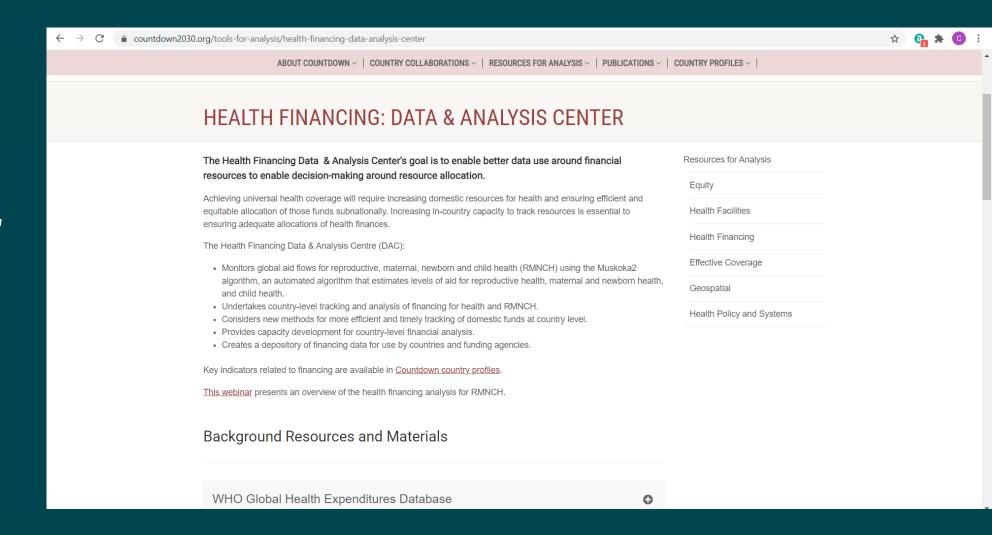




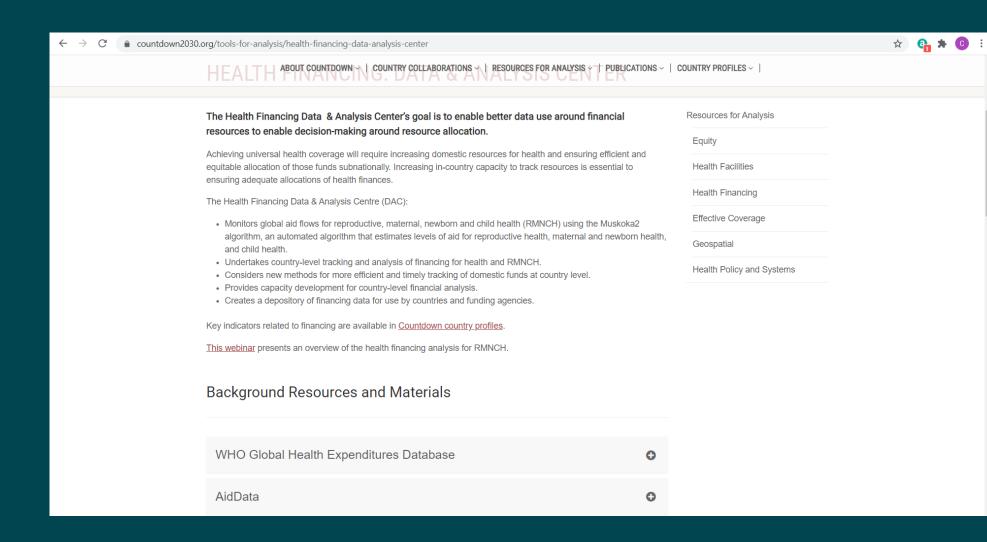




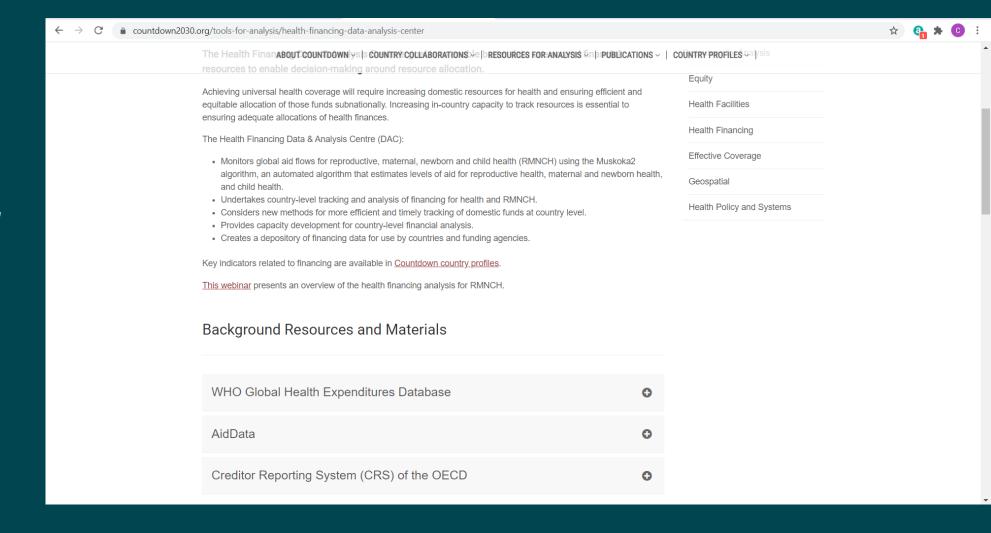




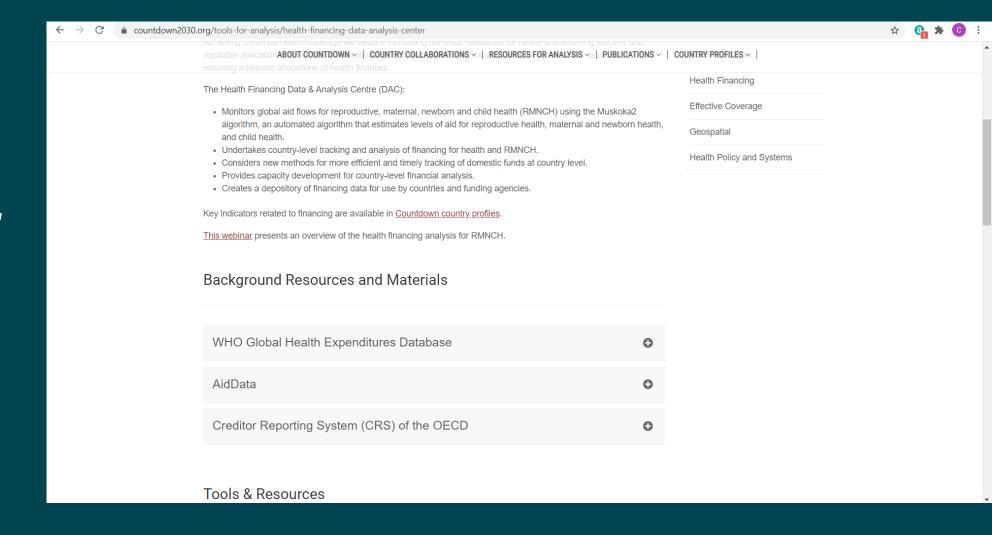




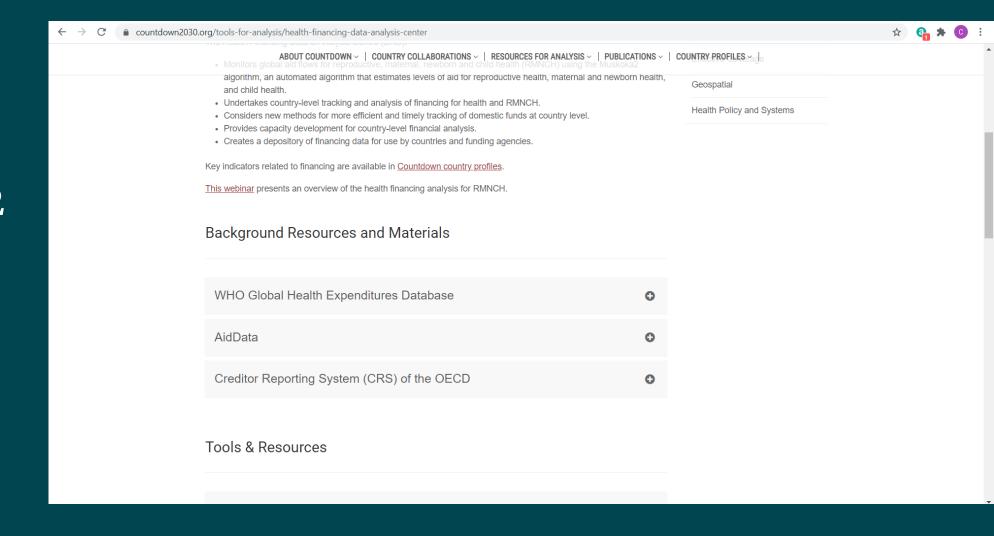




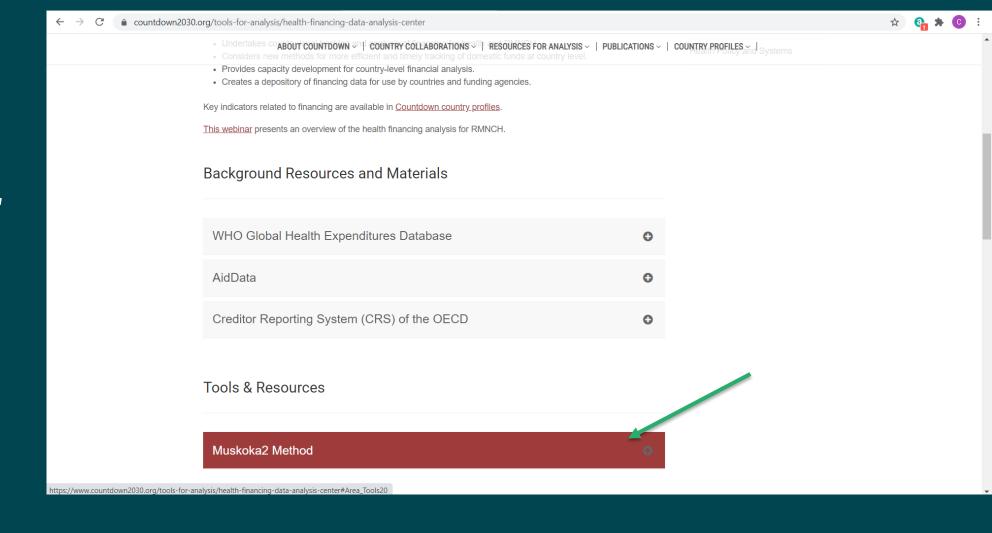












### Steps for preparing the Muskoka2 Uganda Workbook

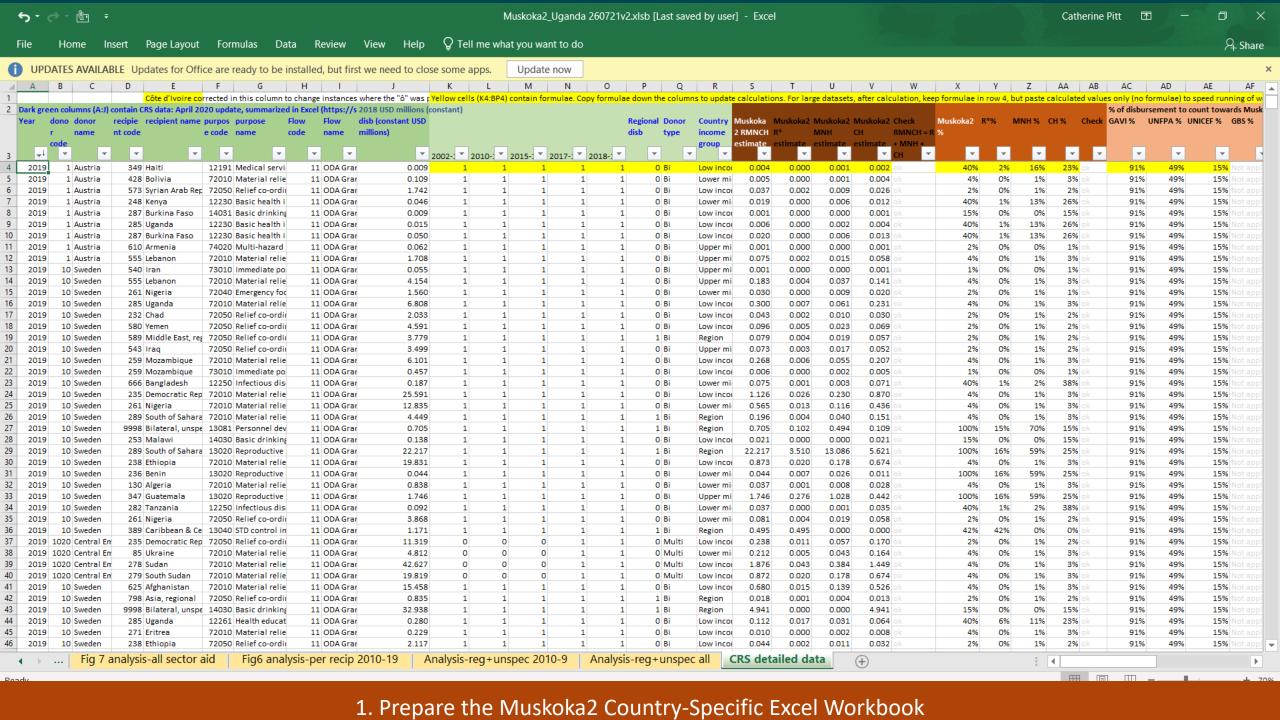


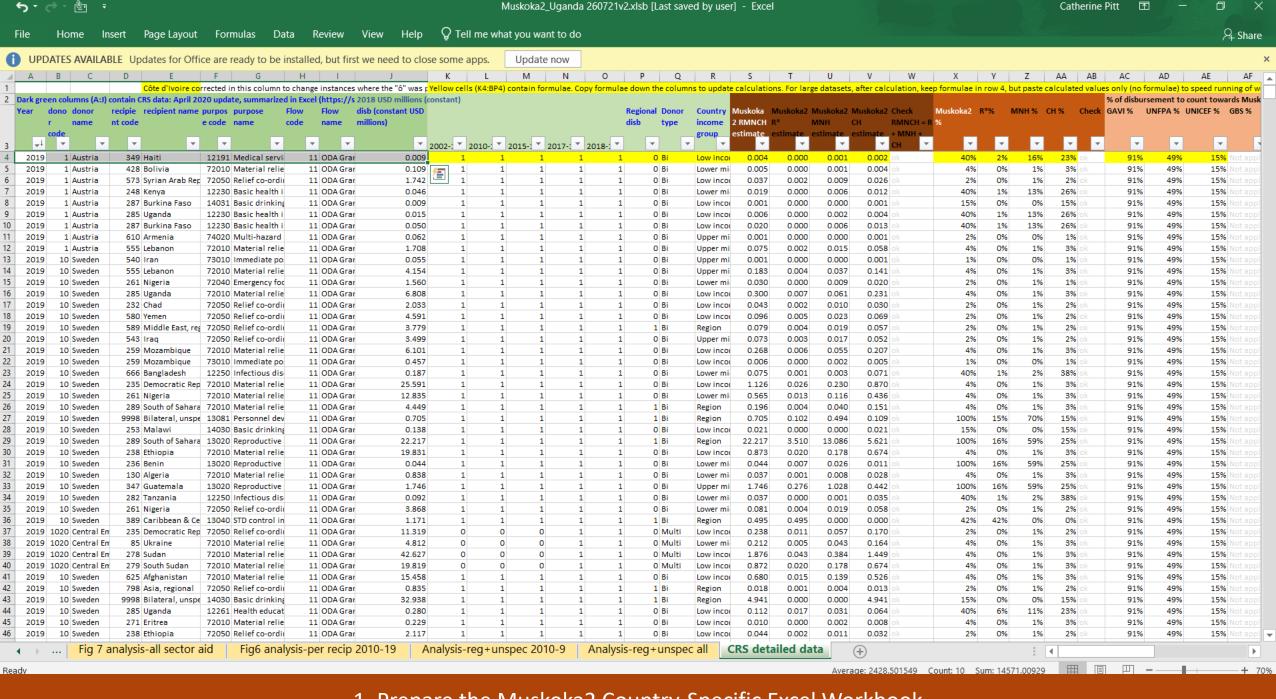
- 1. Prepare the Muskoka2 Country-Specific Excel Workbook to receive the detailed CRS data on Uganda
- 2. Download and prepare raw CRS data on Uganda
- 3. Transfer the prepared CRS data on Uganda into the Muskoka2 Excel Workbook and implement Muskoka2 algorithm
- 4. Prepare analyses and figures

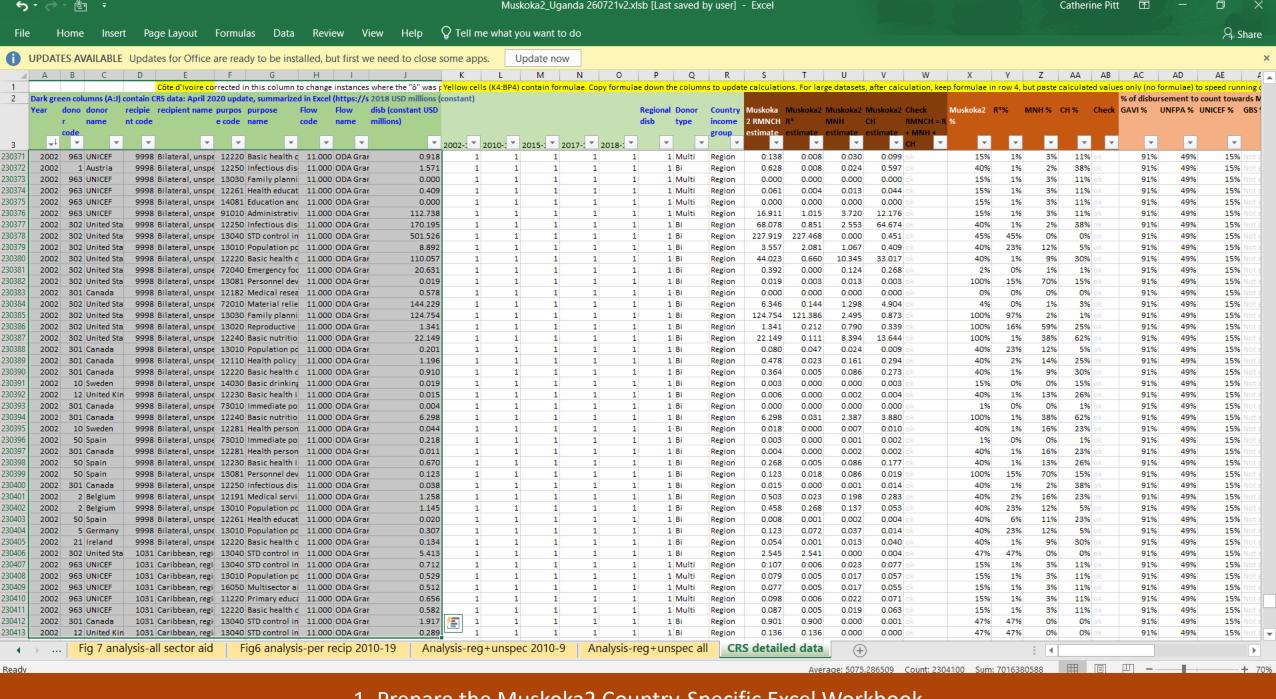
### Changes to the Muskoka2 Global Workbook

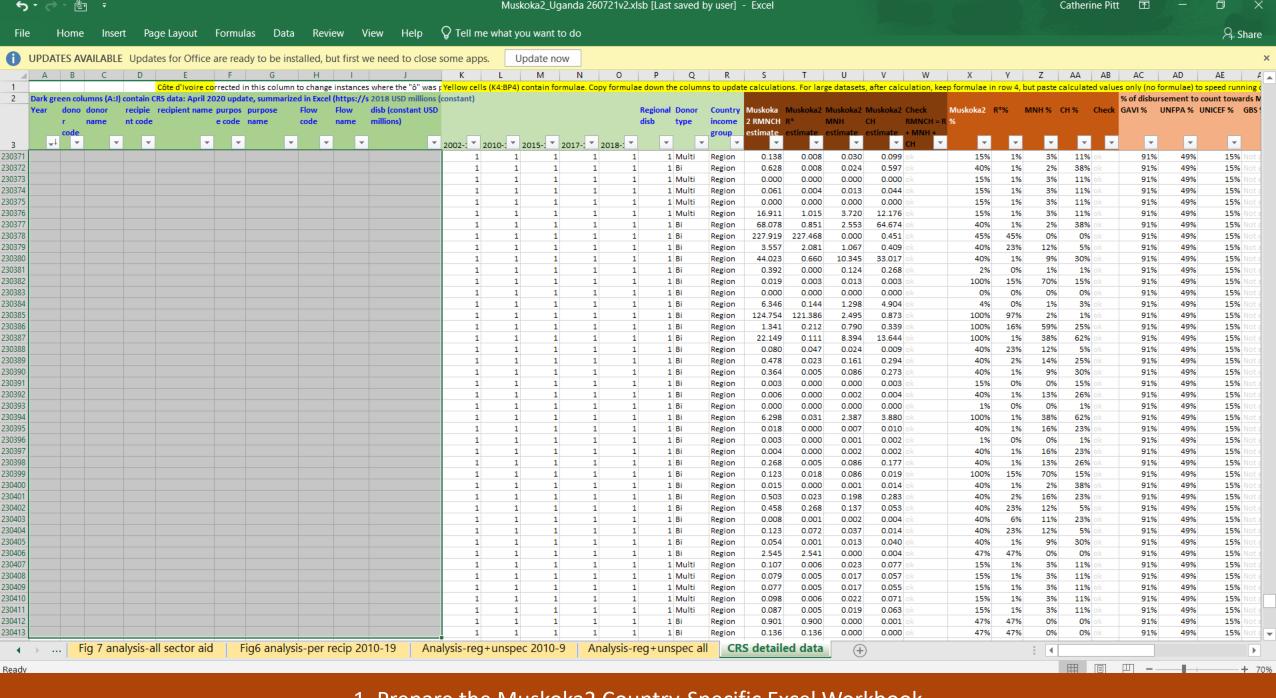


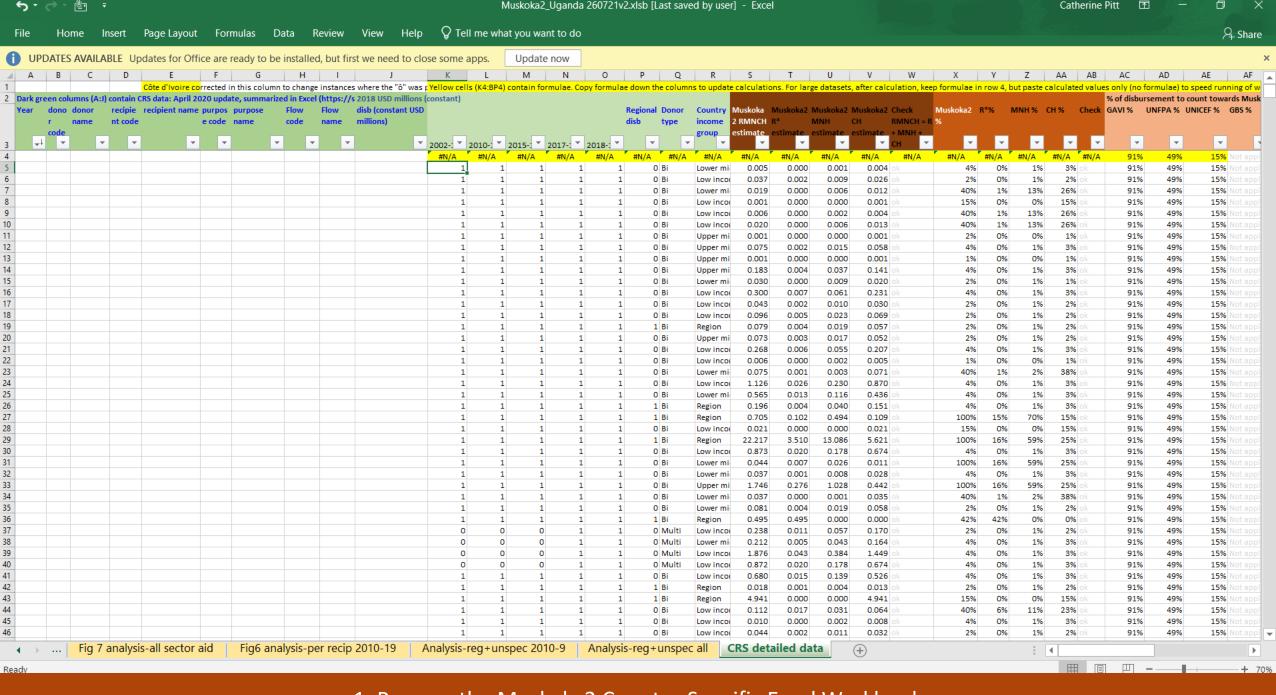
- Update the "Start" tab
- Delete yellow "Core contributions" tab it cannot be used for analyses of individual countries
- In the yellow "Analysis-reg + unspec" yellow tabs, copy and paste <u>values</u> for the pivot tables
- In the green "CRS detailed data" sheet, delete all the data (being careful NOT to delete the yellow formulae cells in row 4)

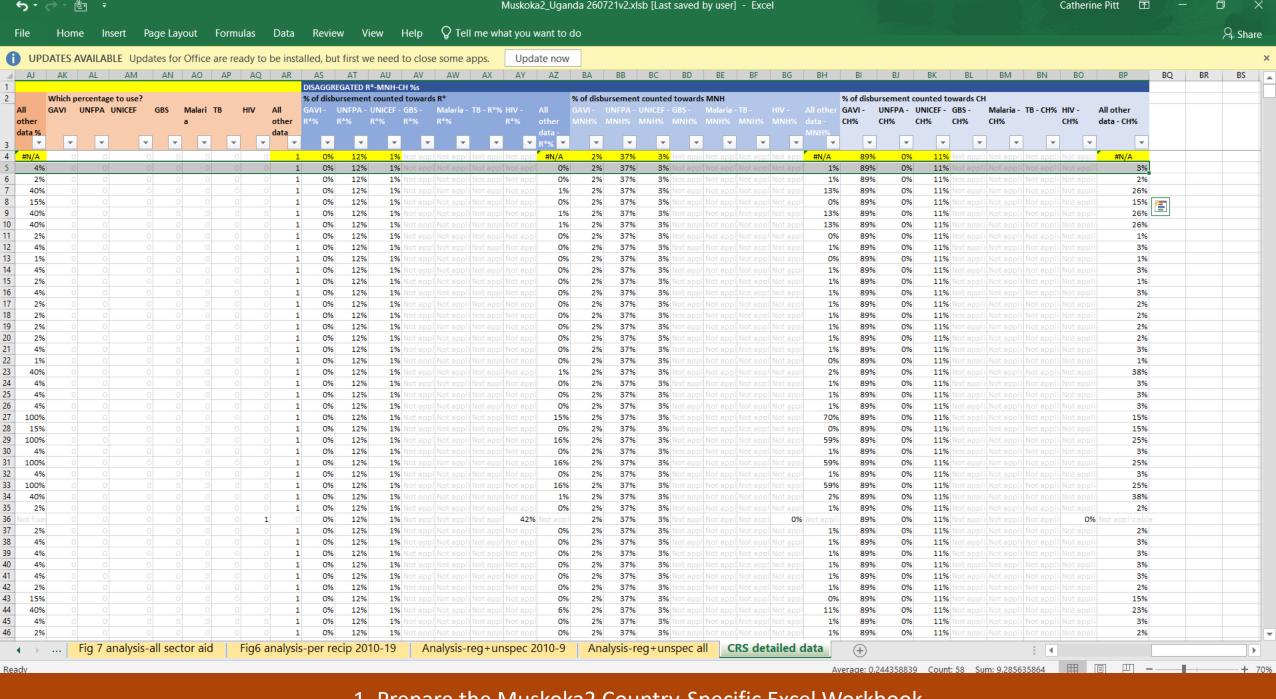


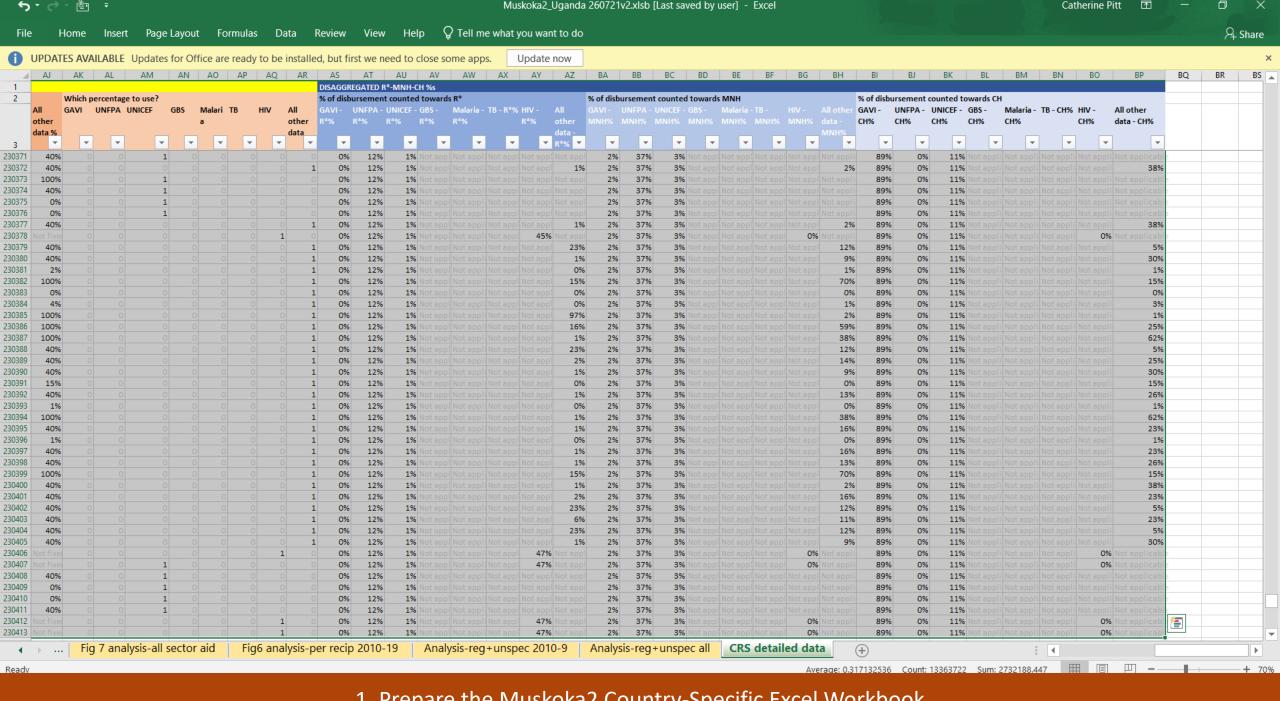


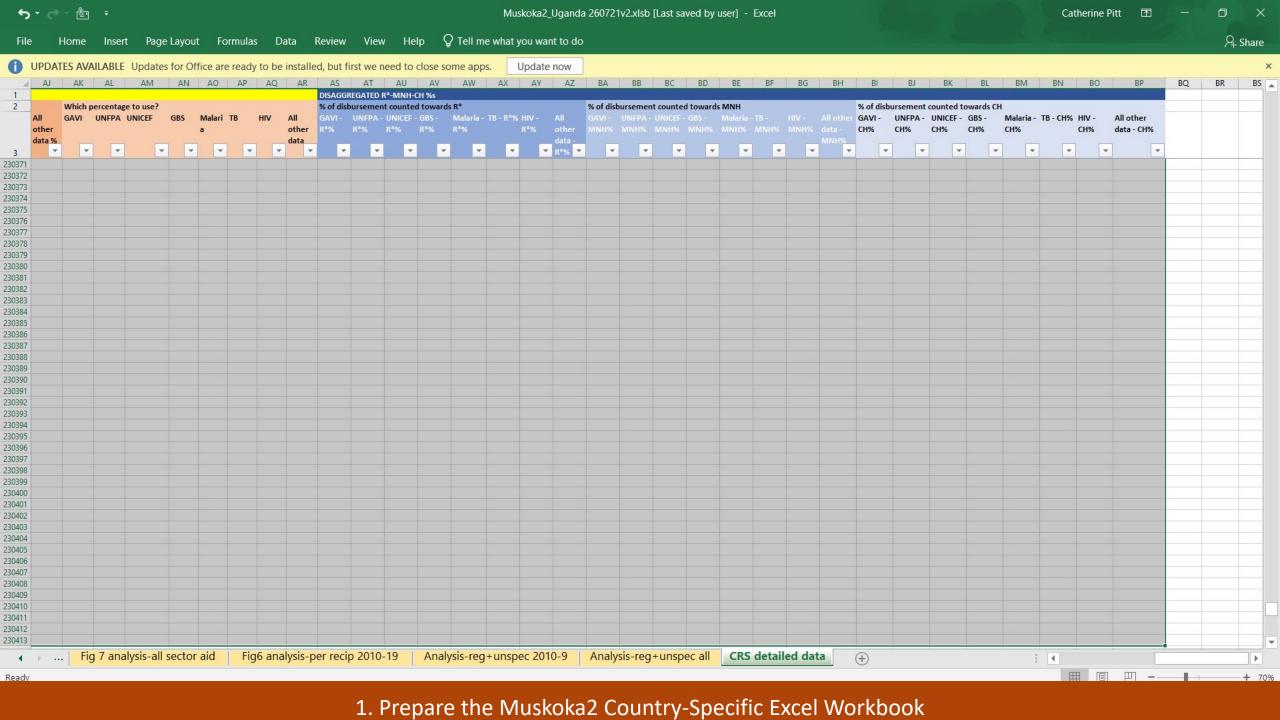












### Summary

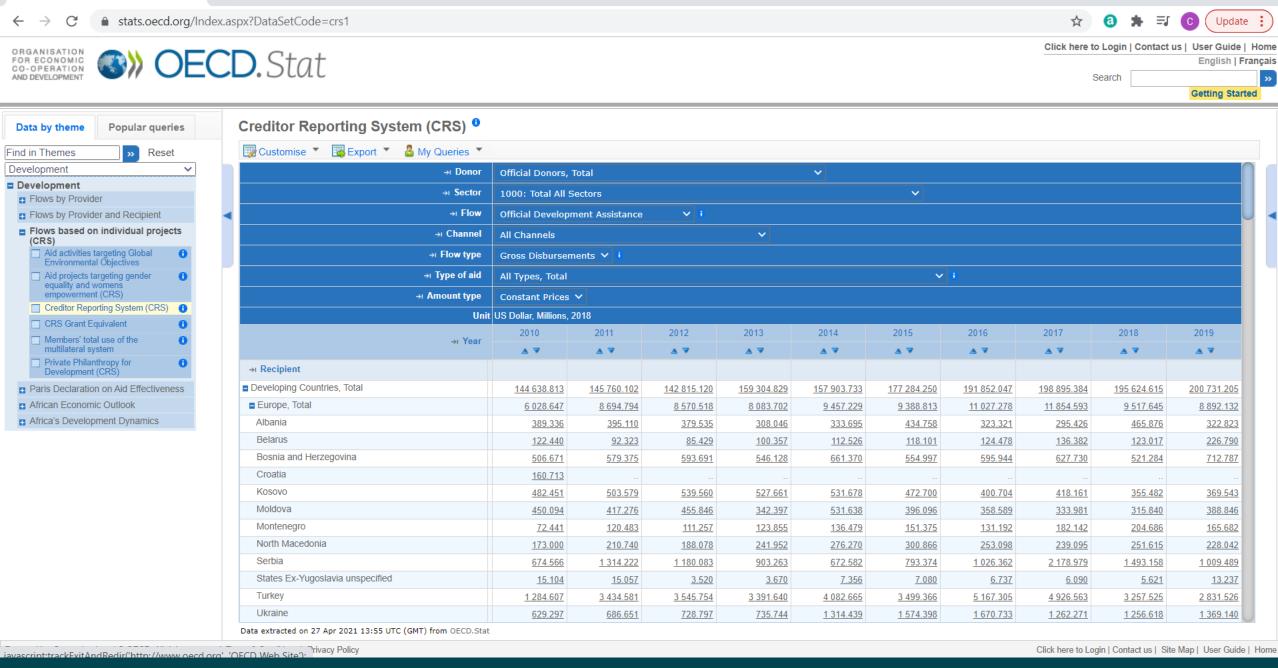


### We have just:

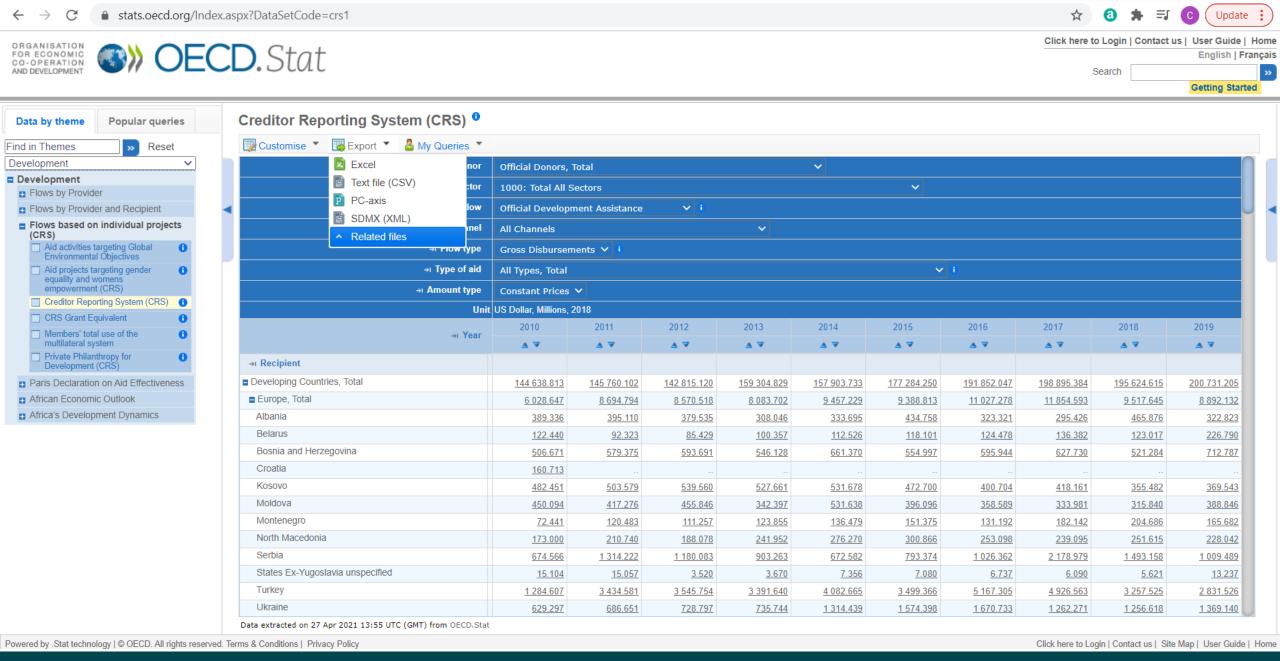
 Prepared the Muskoka2 Global Workbook to receive the detailed Uganda data

### Next:

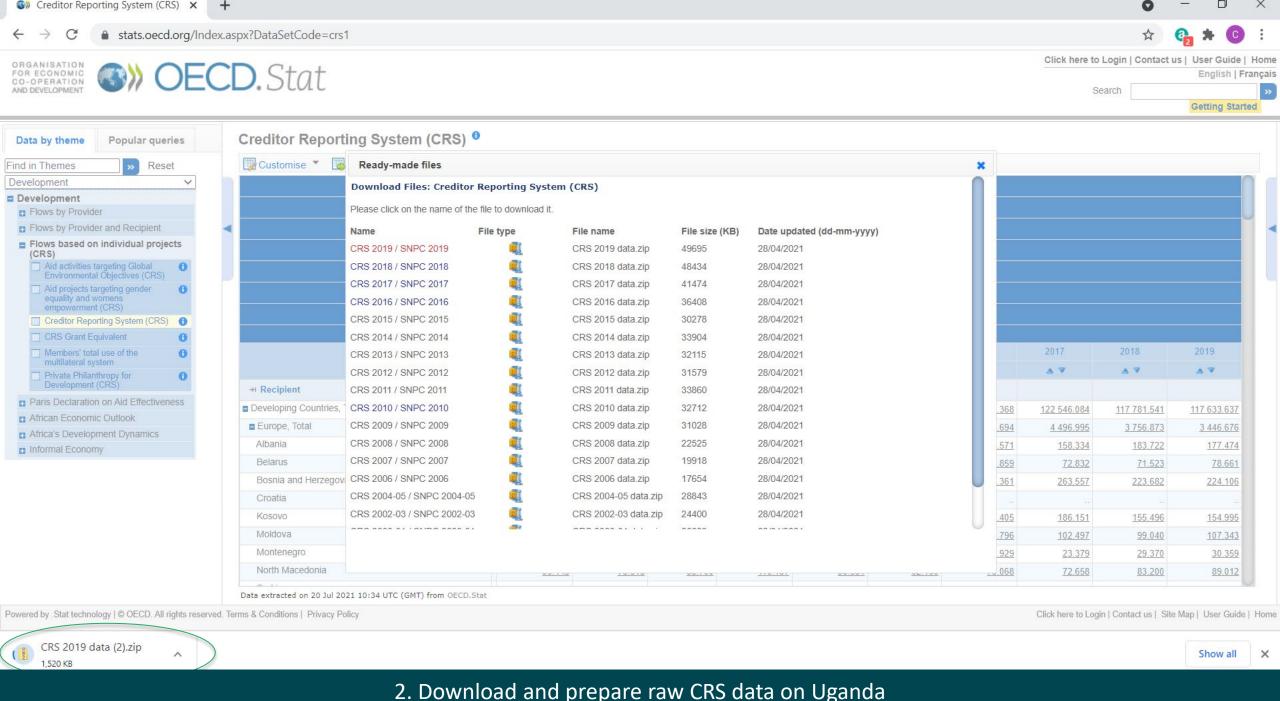
- Download the raw data from the CRS as .txt files
- Unzip the .txt files
- Import the .txt files into Excel and save as Excel Binary workbooks
- Delete data for all recipients except Uganda to reduce size of datasets

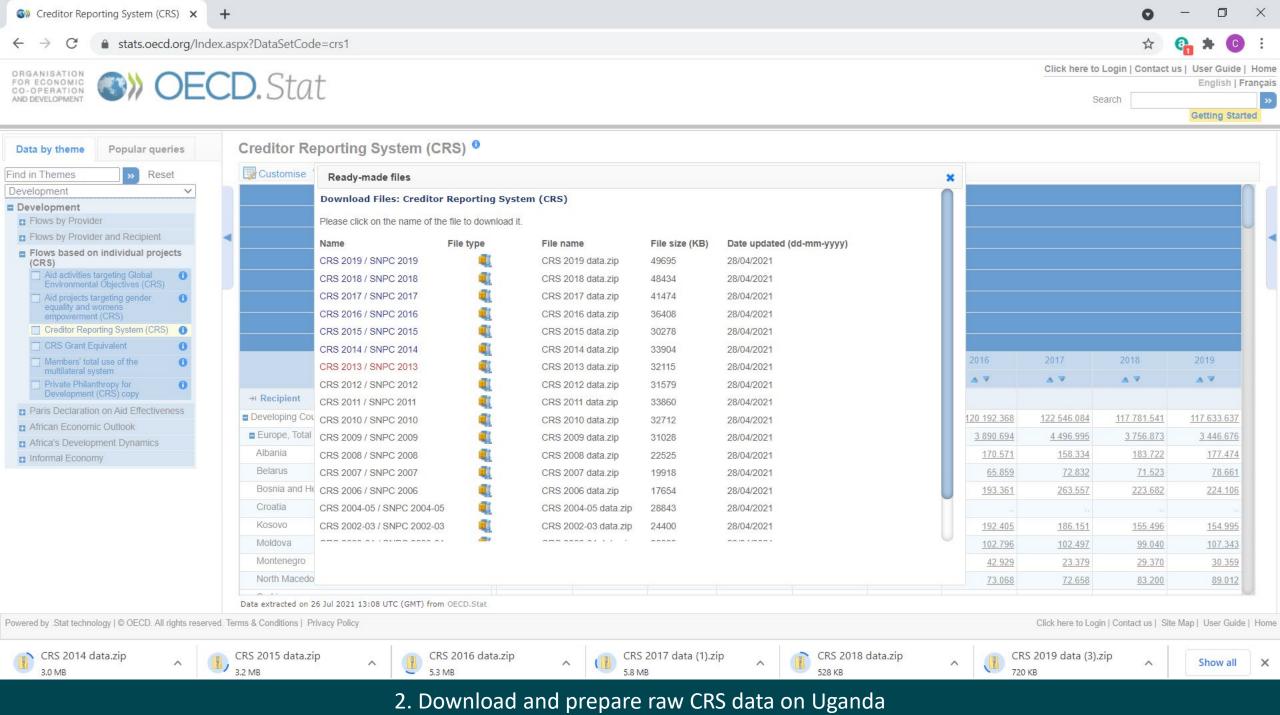


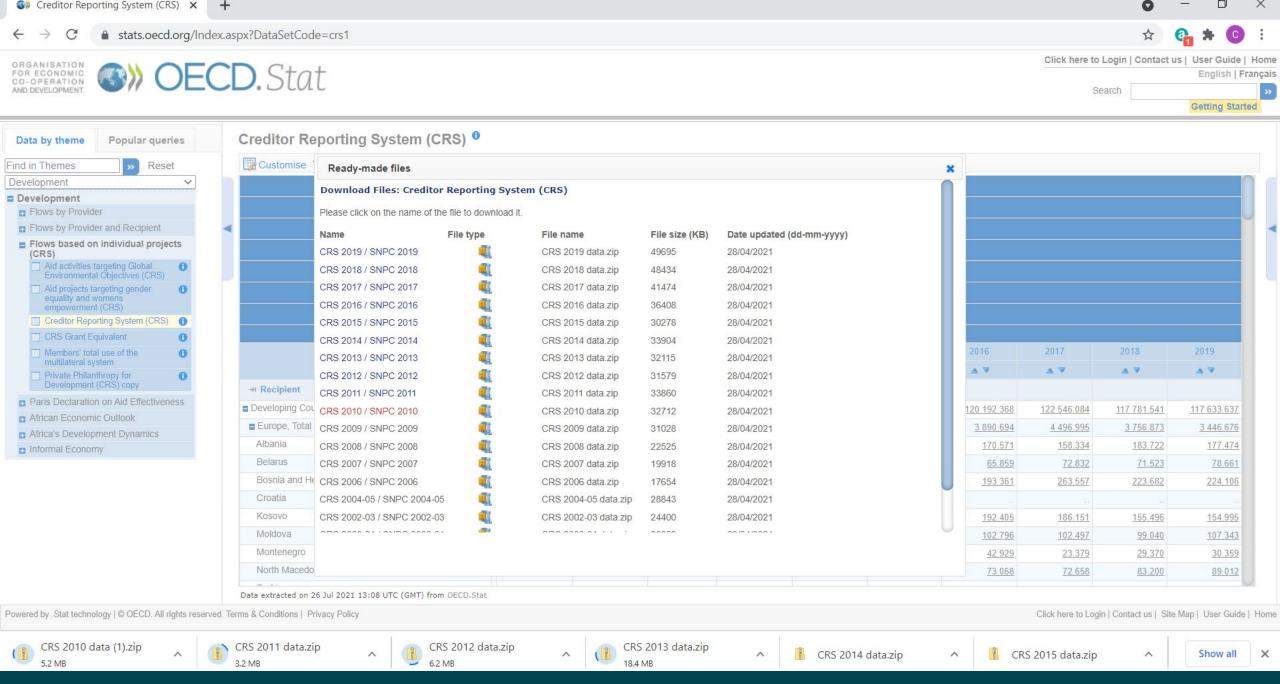
Creditor Reporting System (CRS) X

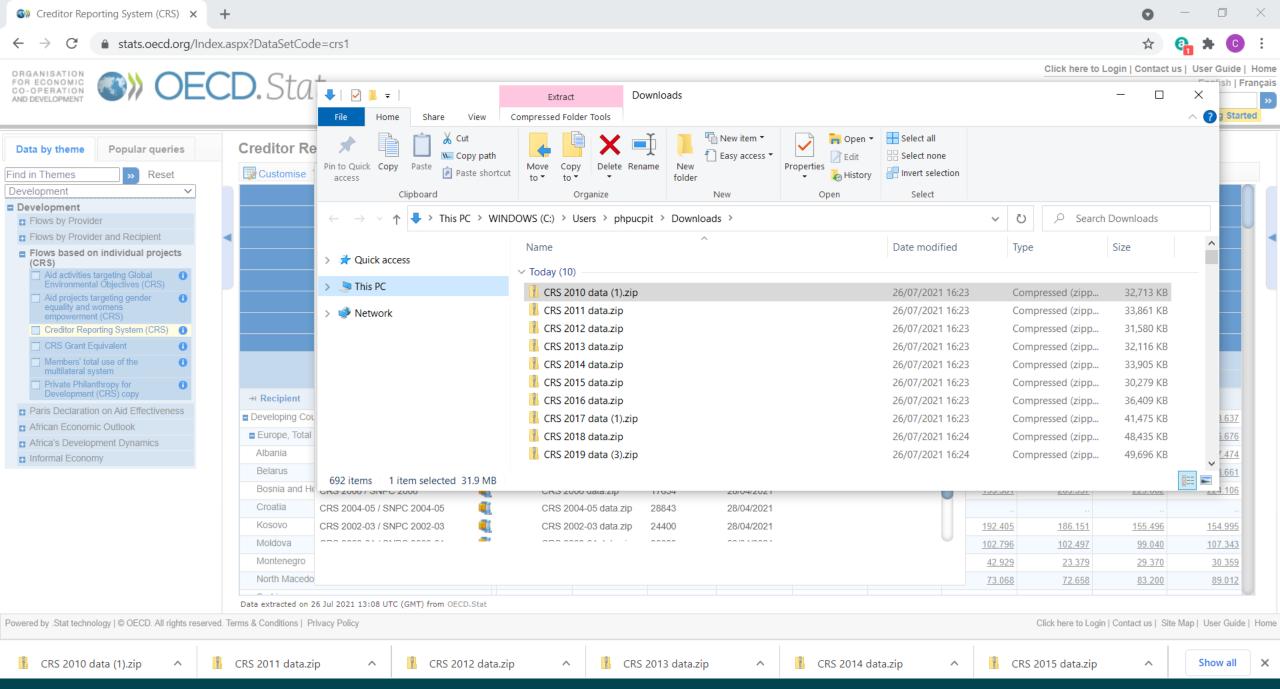


Creditor Reporting System (CRS) X

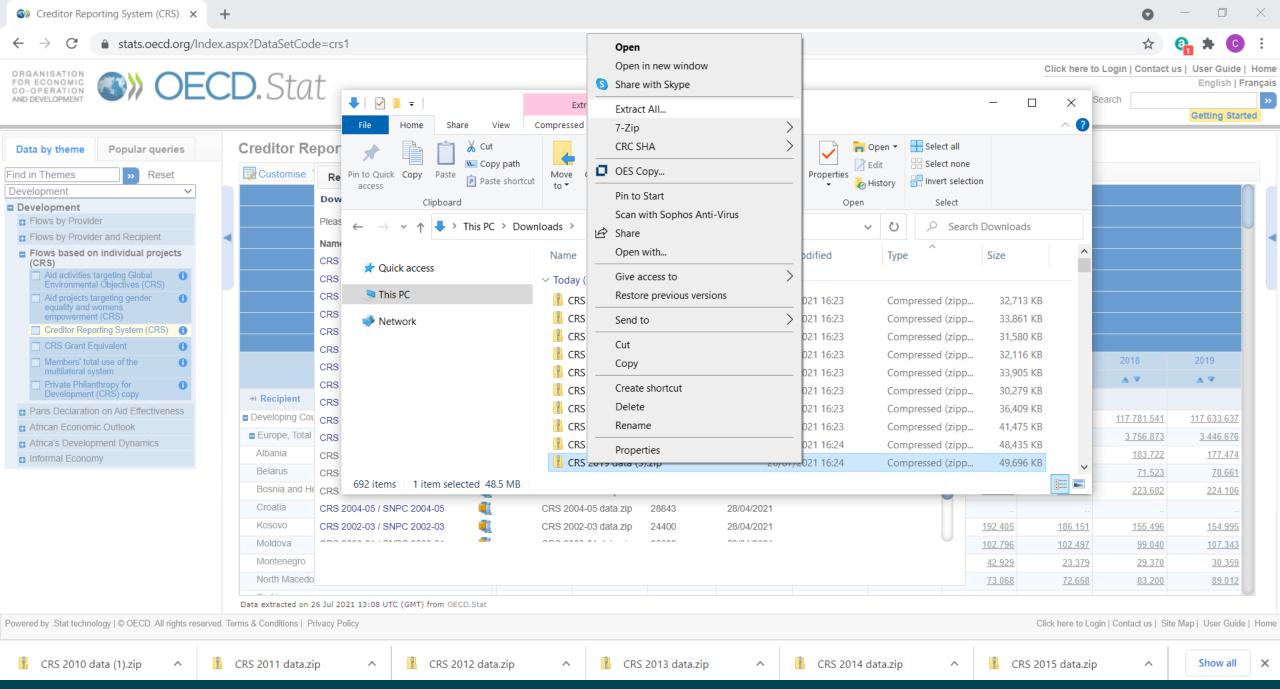




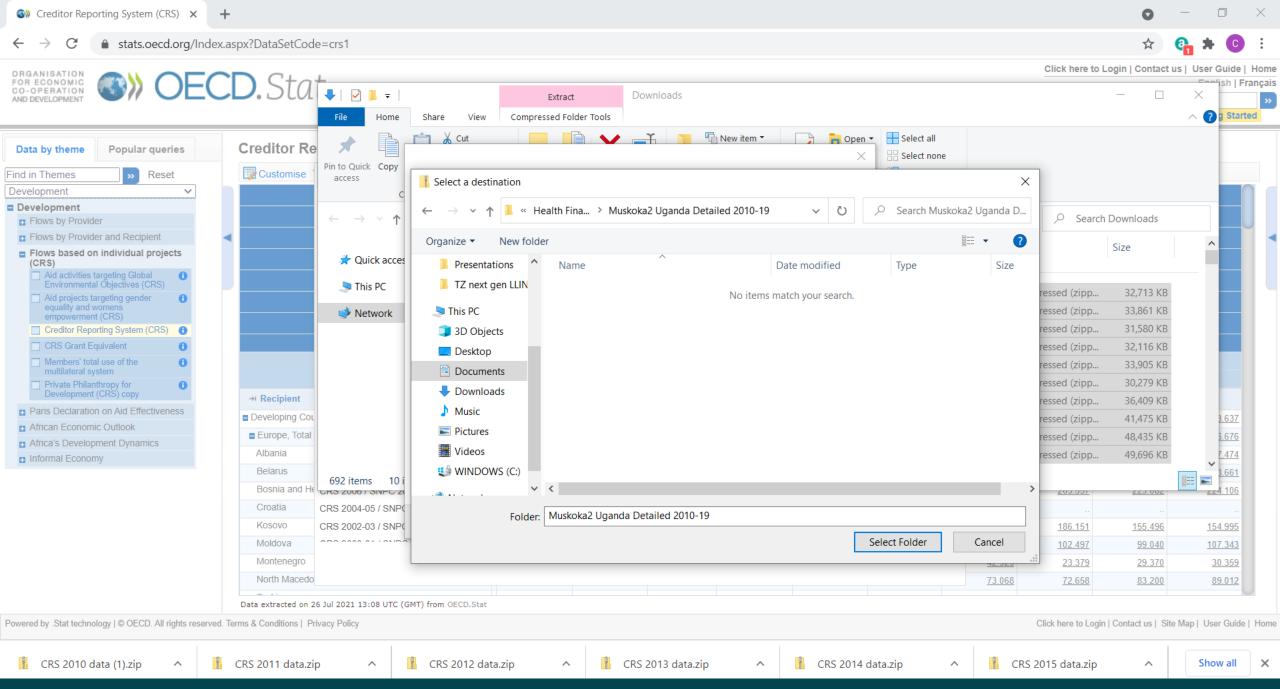




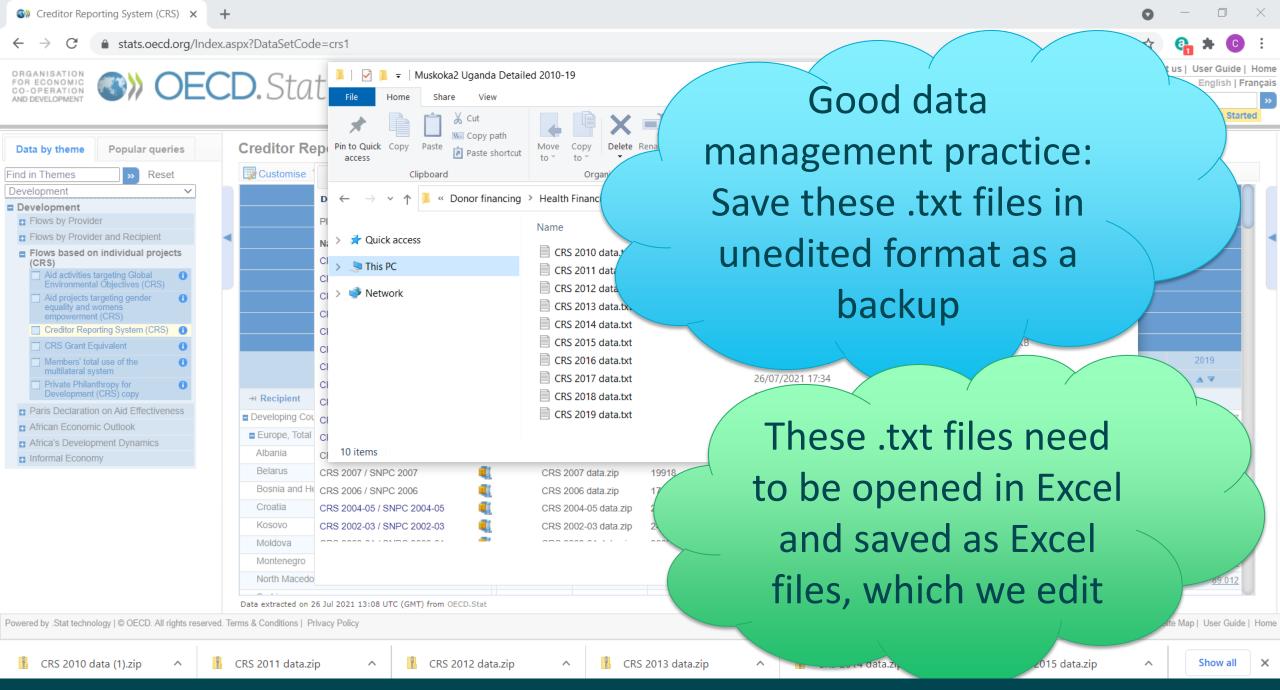
2. Download and prepare raw CRS data on Uganda



2. Download and prepare raw CRS data on Uganda



2. Download and prepare raw CRS data on Uganda





New

Open

Sav

Save A

Histon

Share

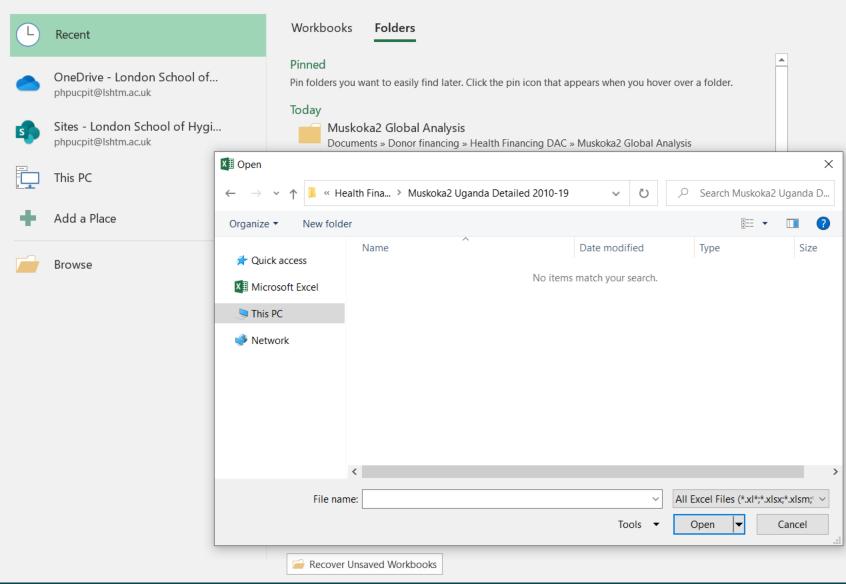
Expor

CIOS

Account

Feedback

Options





New

Open

Save

Save A

History

Drint

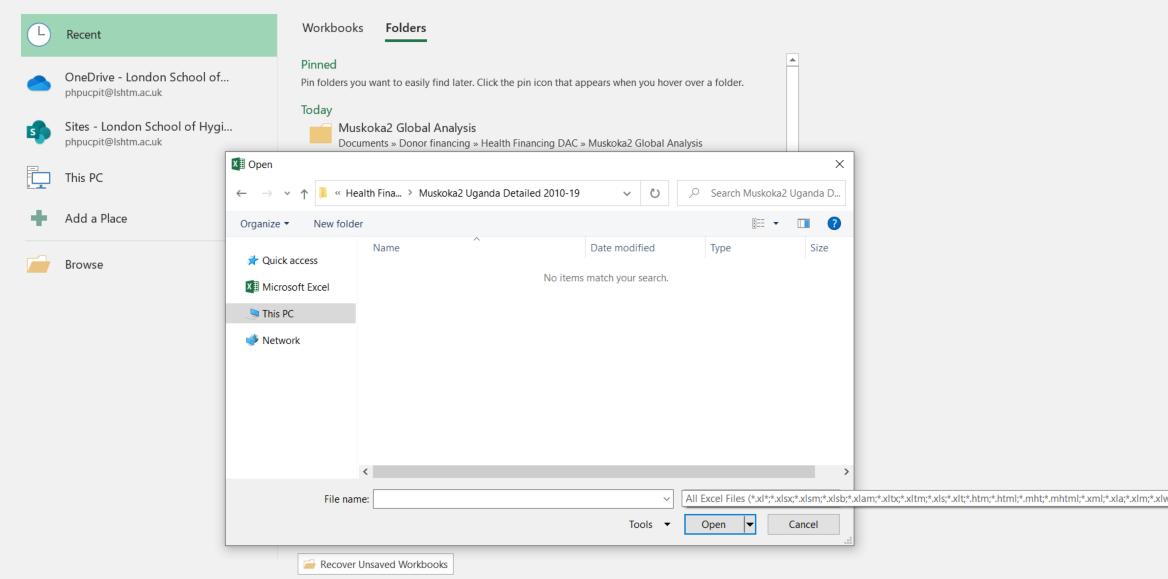
Shar

Expor

Account

Feedback

Options





New

Open

Sav

Save A

History

Drin

Share

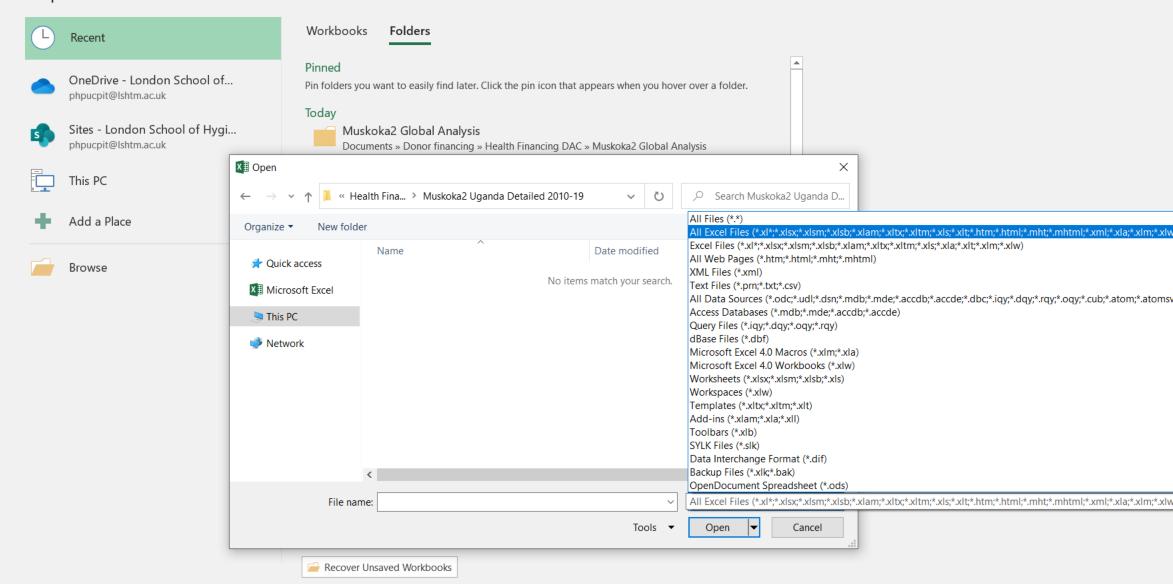
Expor

C.05.

Account

Feedback

Options





New

Open

Sav€

Save A

Histor

Print

Share

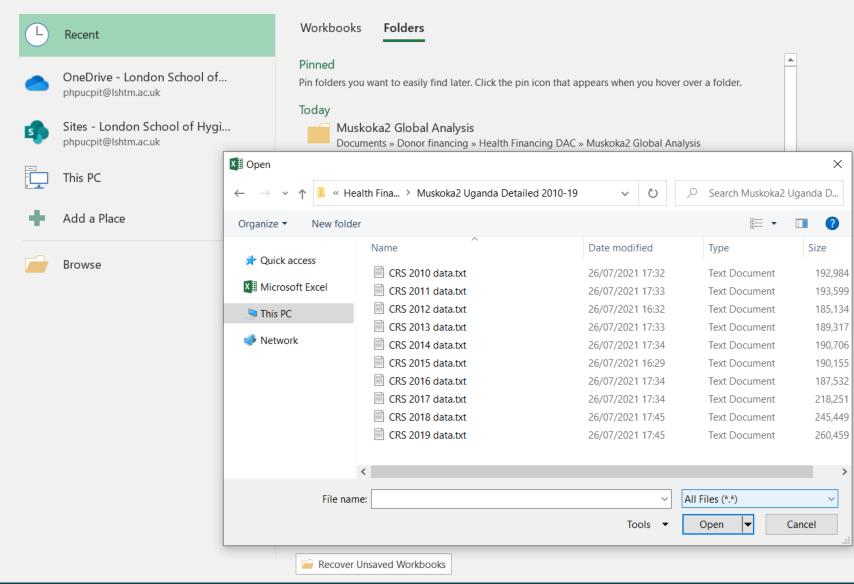
Expoi

Clos

Account

Feedback

Options





New

Open

Sav

Save A

Histon

\_ . .

Share

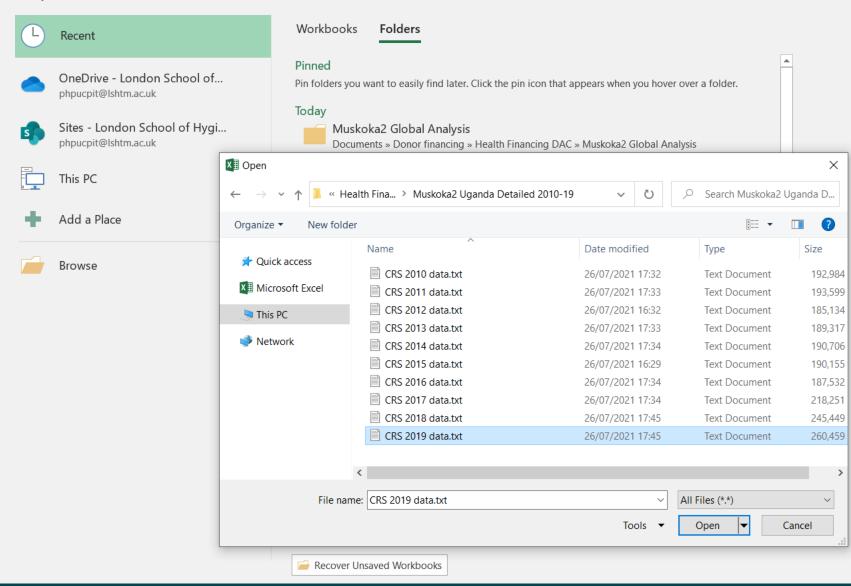
Export

Clos

Account

Feedback

Options





New

Open

Account

Feedback

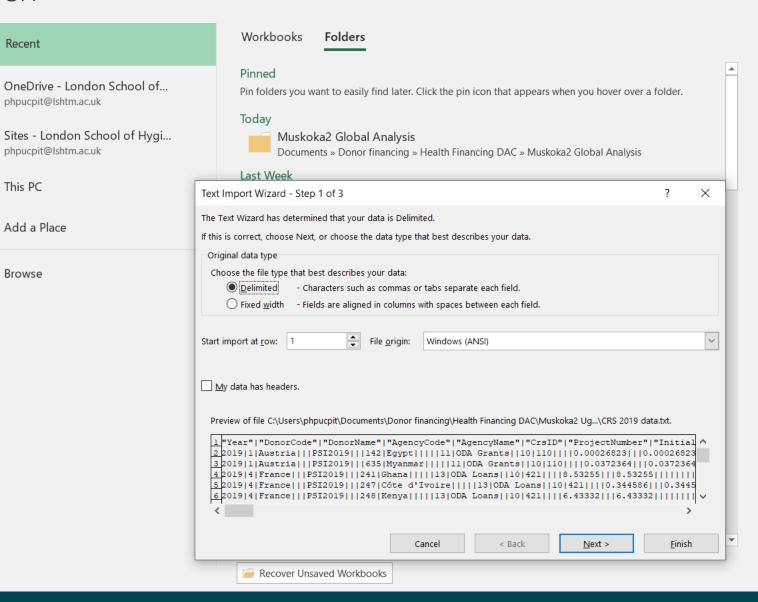
Options

Recent

This PC

Browse

Add a Place





New

Open

Sav

Save A

Histor

Share

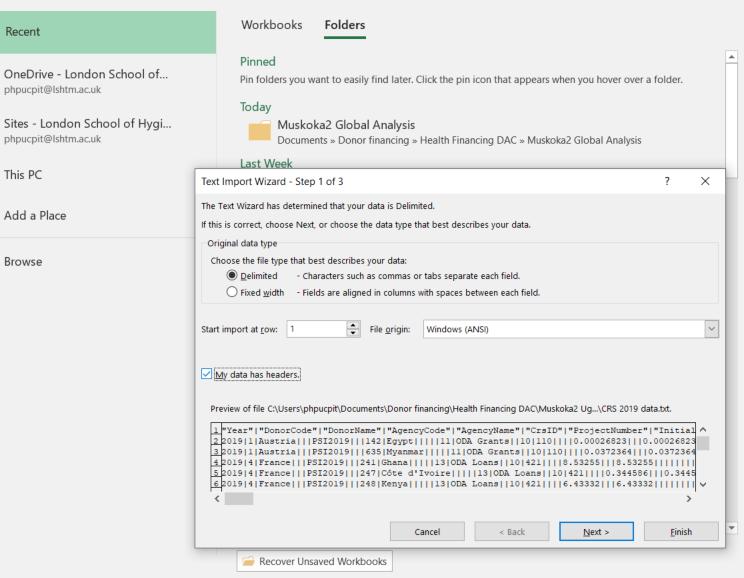
Expor

CIUS

Account

Feedback

Options





New

Open

Account

Feedback

Options

Recent

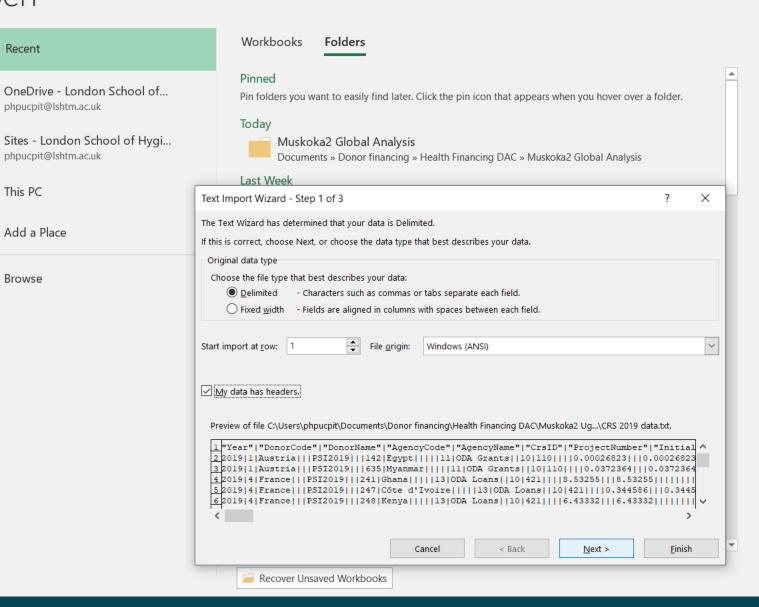
This PC

Browse

Add a Place

phpucpit@lshtm.ac.uk

phpucpit@lshtm.ac.uk





New

Open

Account

Feedback

Options

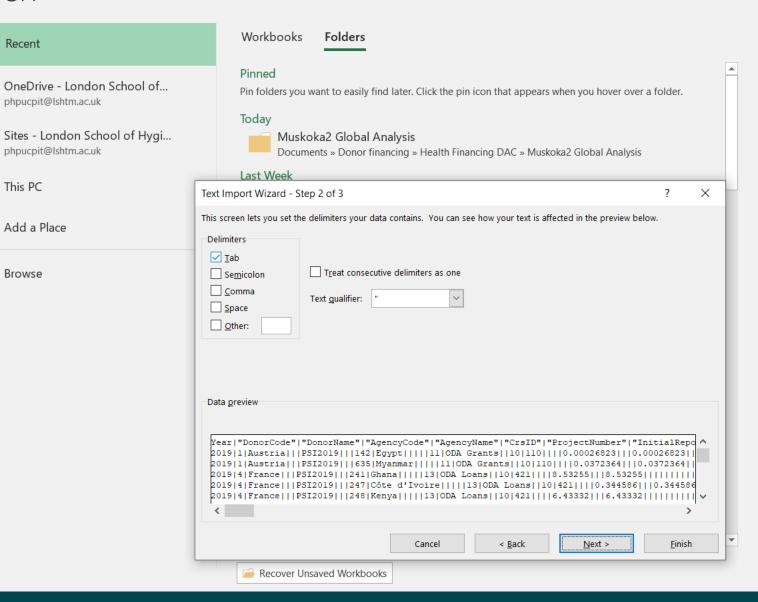
Recent

This PC

Browse

Add a Place

phpucpit@lshtm.ac.uk





New

Open

Save

Save A

Histor

. . .

Share

Expor

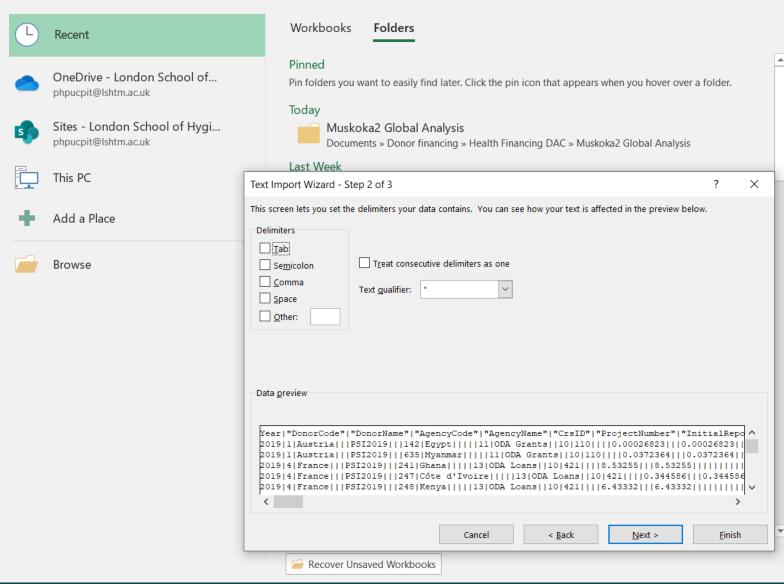
0.00.

Account

Feedback

Options

### Oper





New

Open

5010

Save A

Histor

Prin

Snare

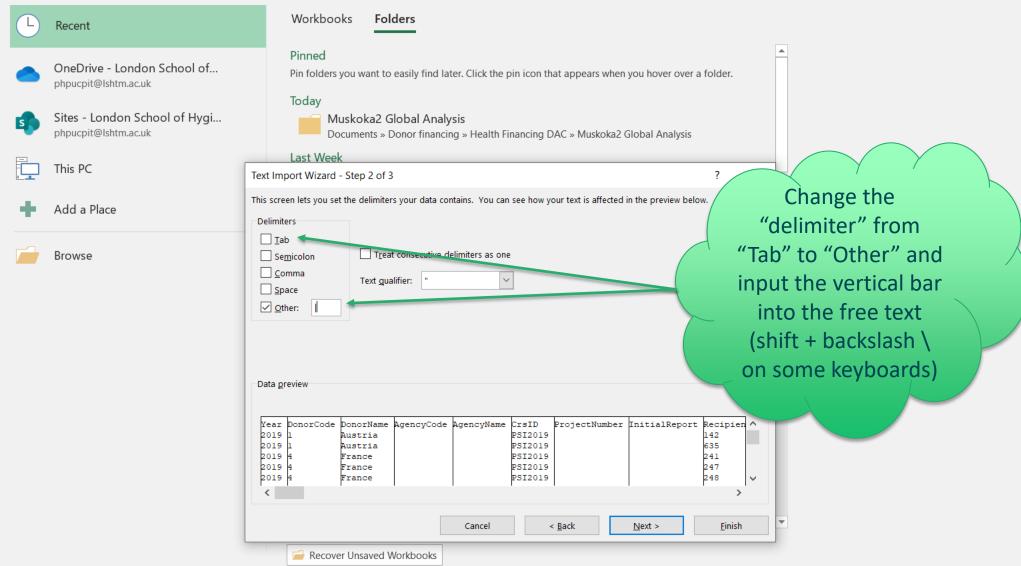
LXPOI

Account

Feedback

Options







New

Open

Jave

Save A

Histor

Share

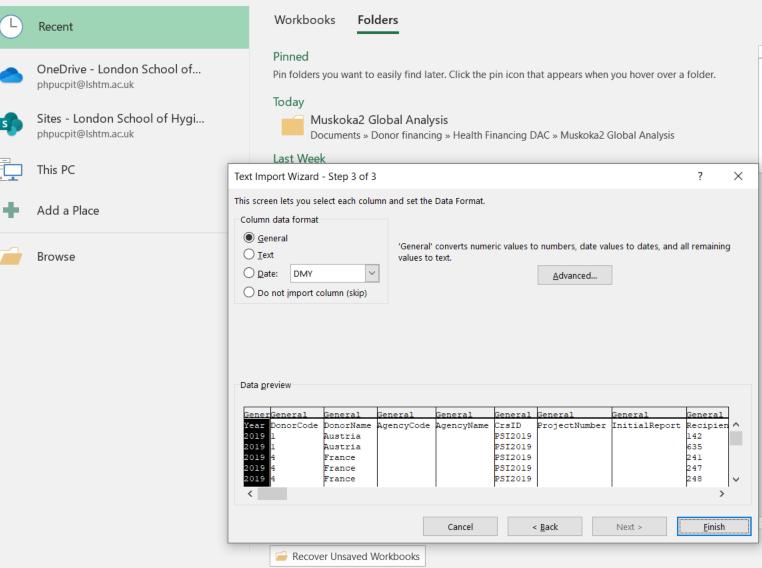
Expor

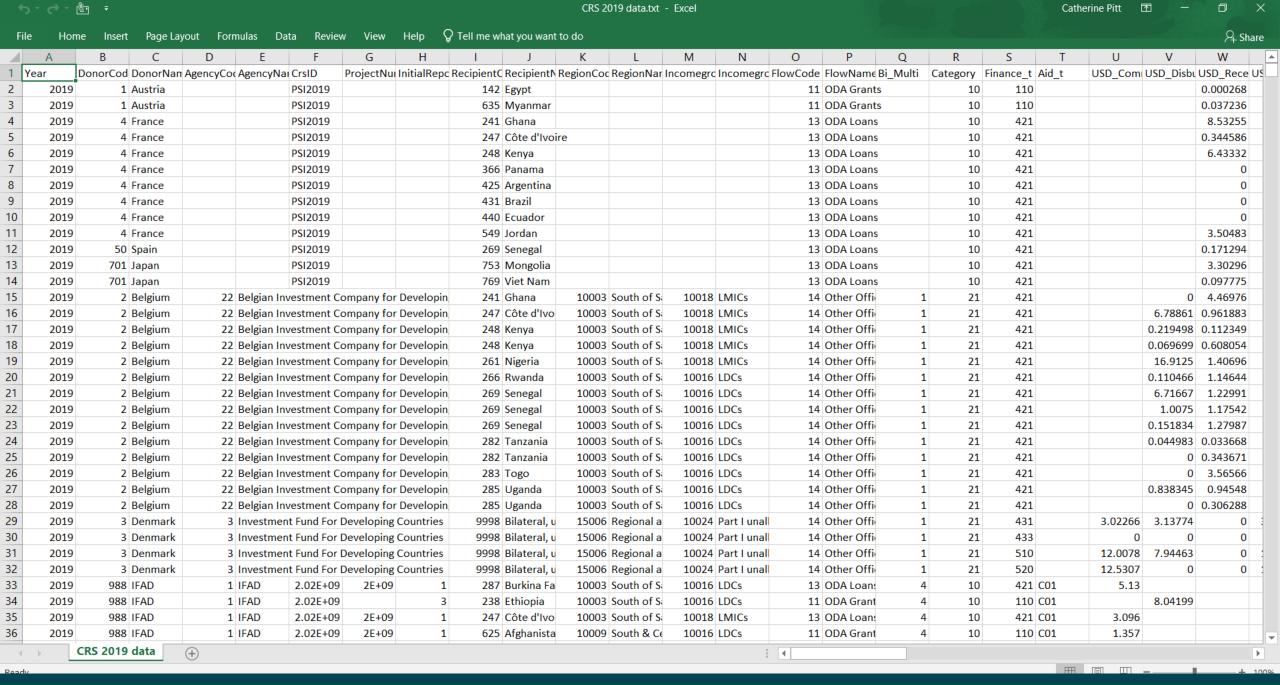
CIOS

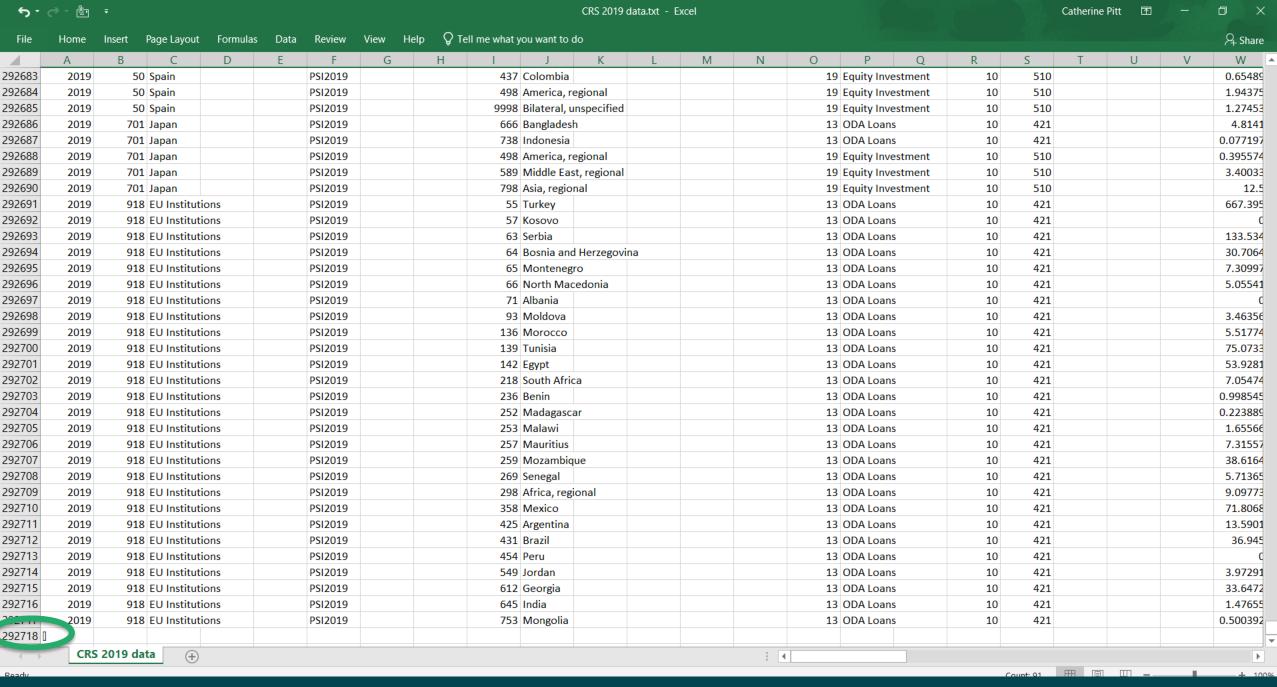
Account

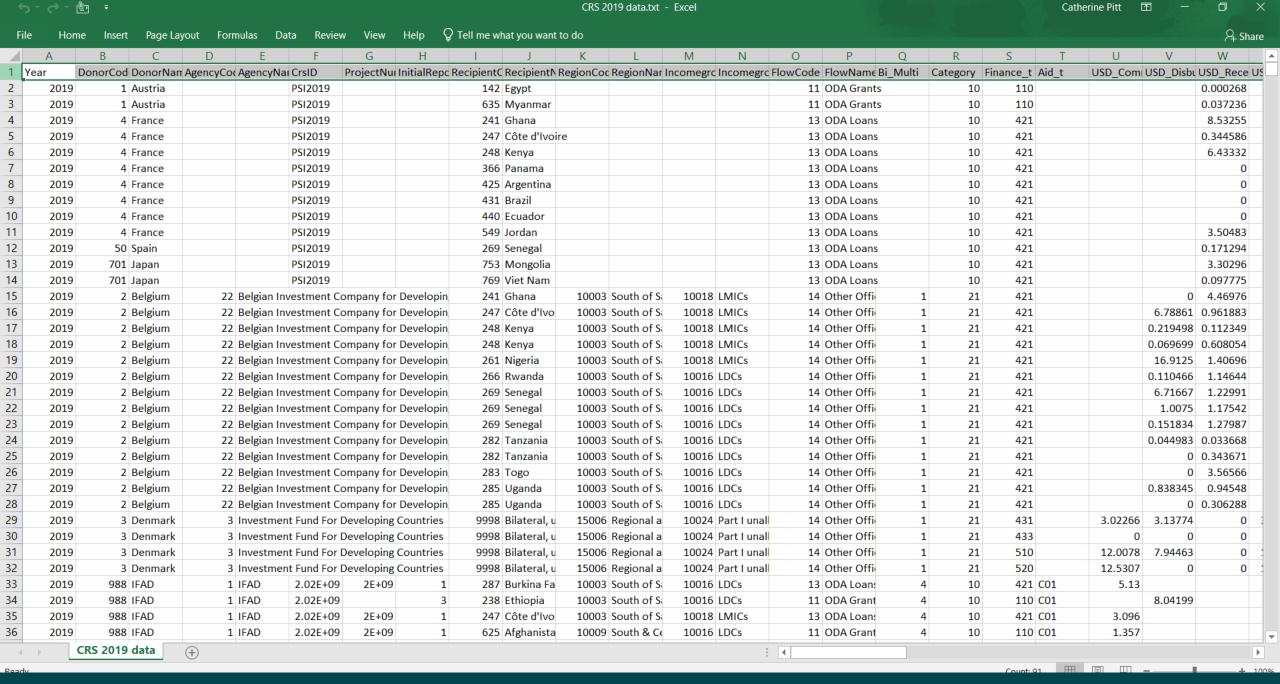
Feedback

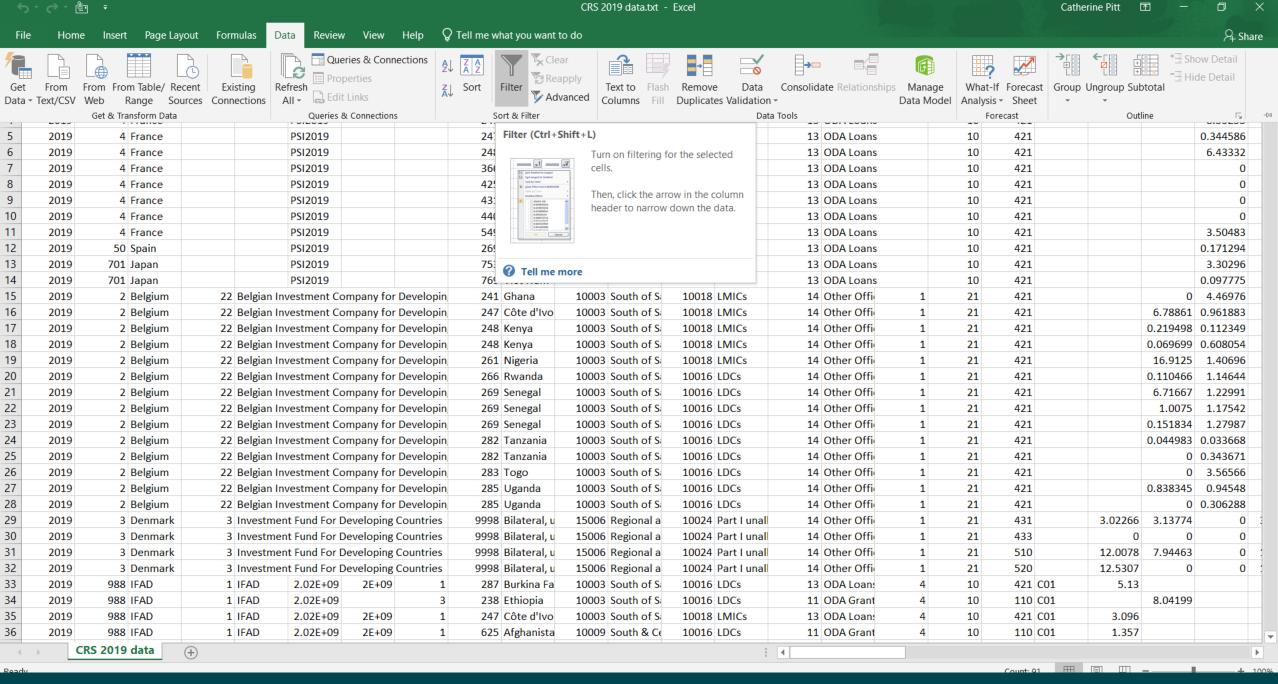
Options

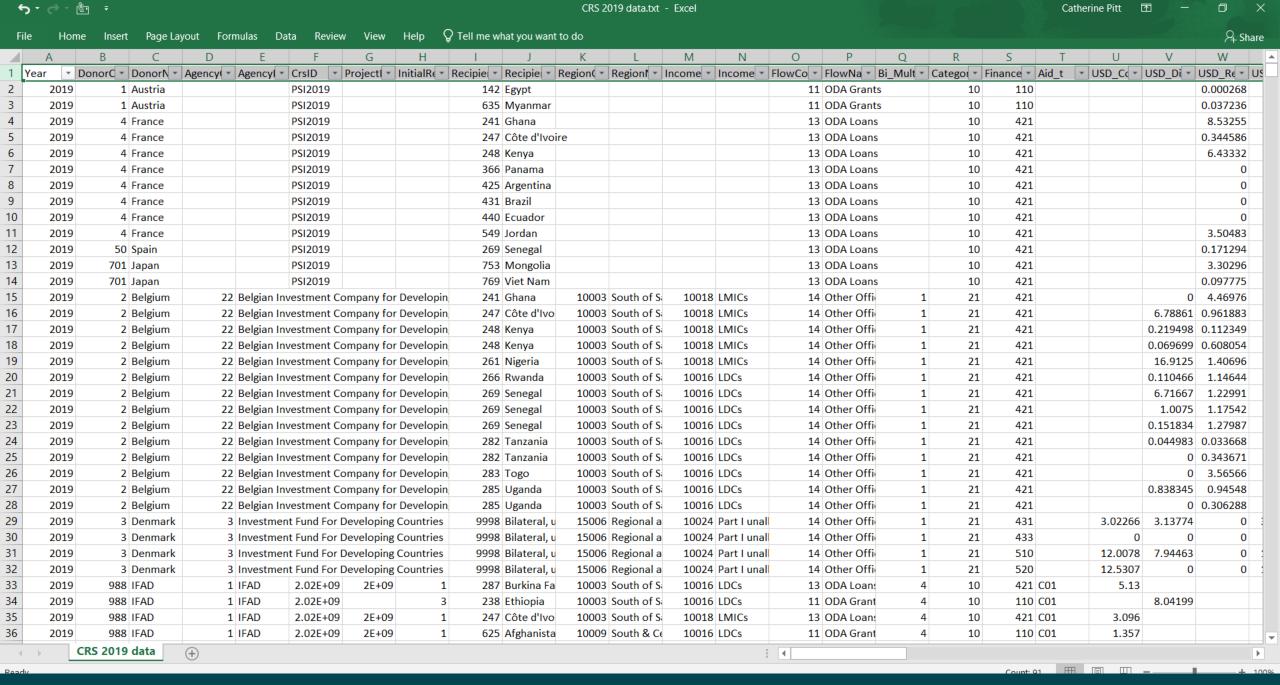


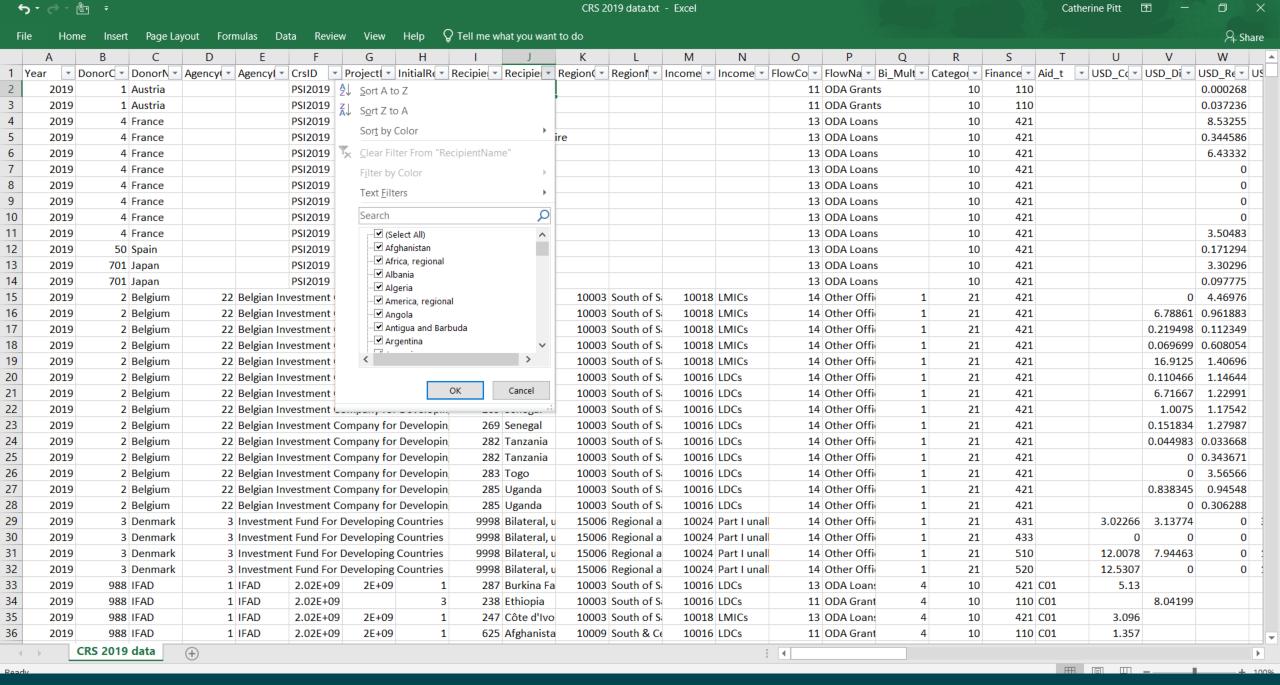


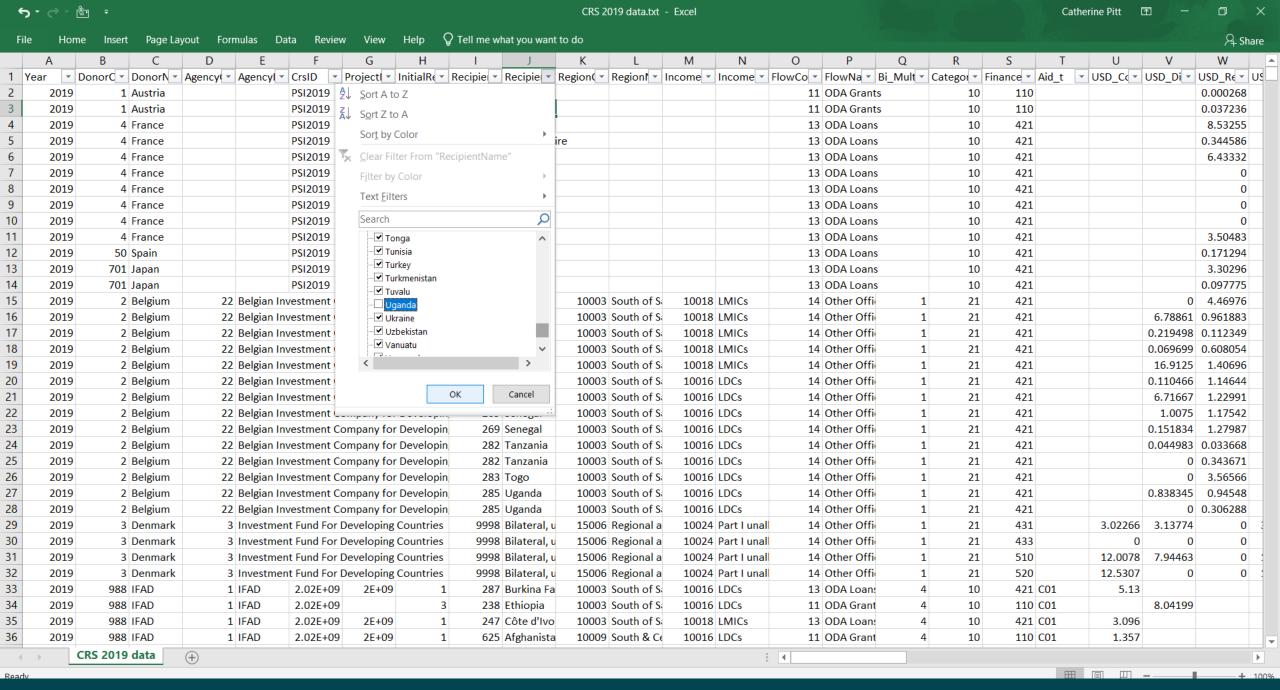


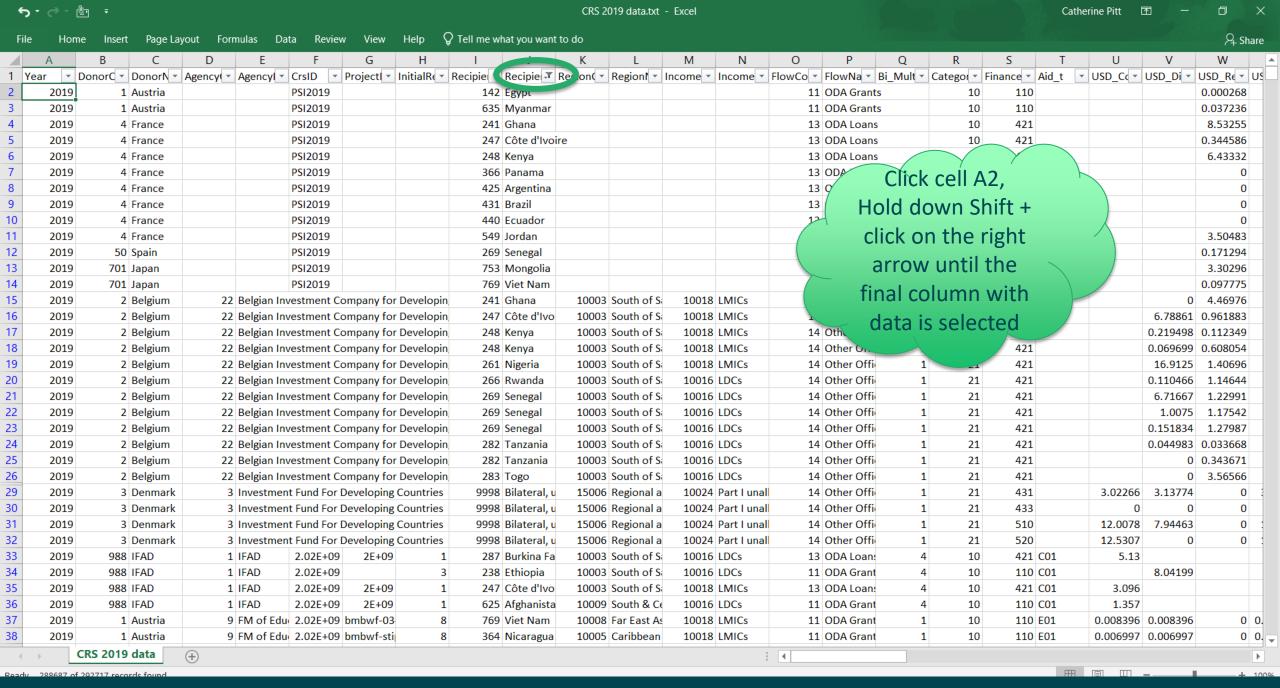


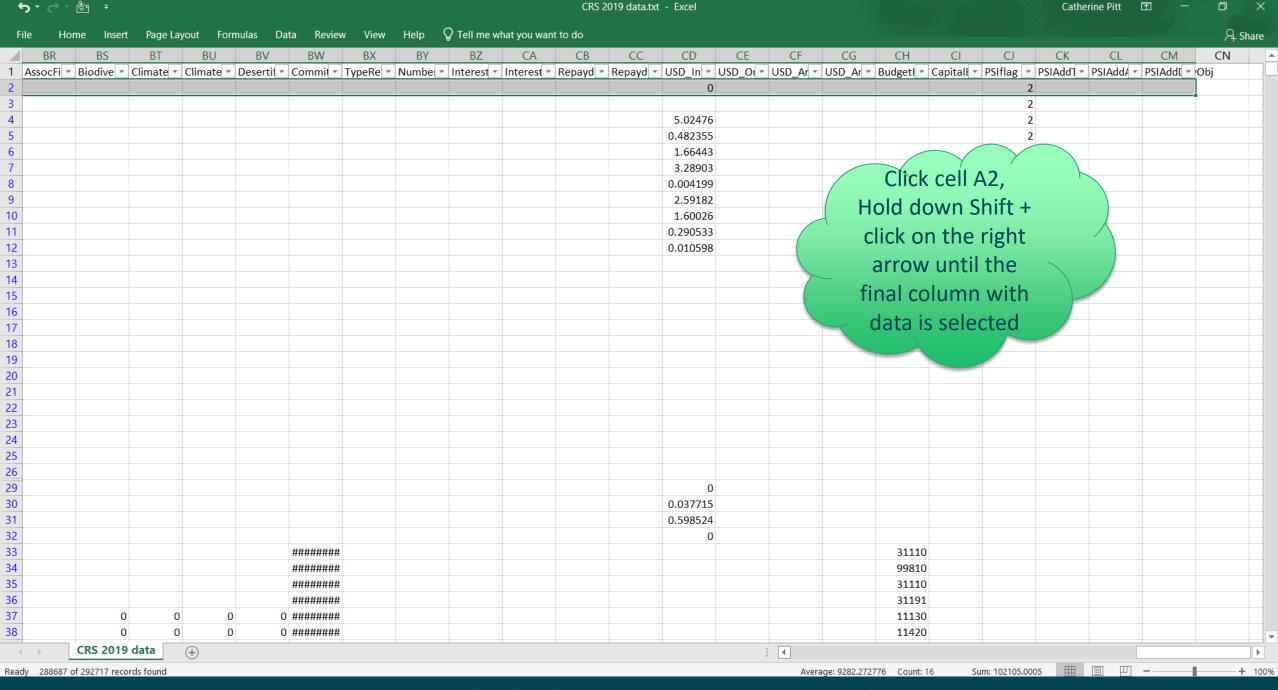


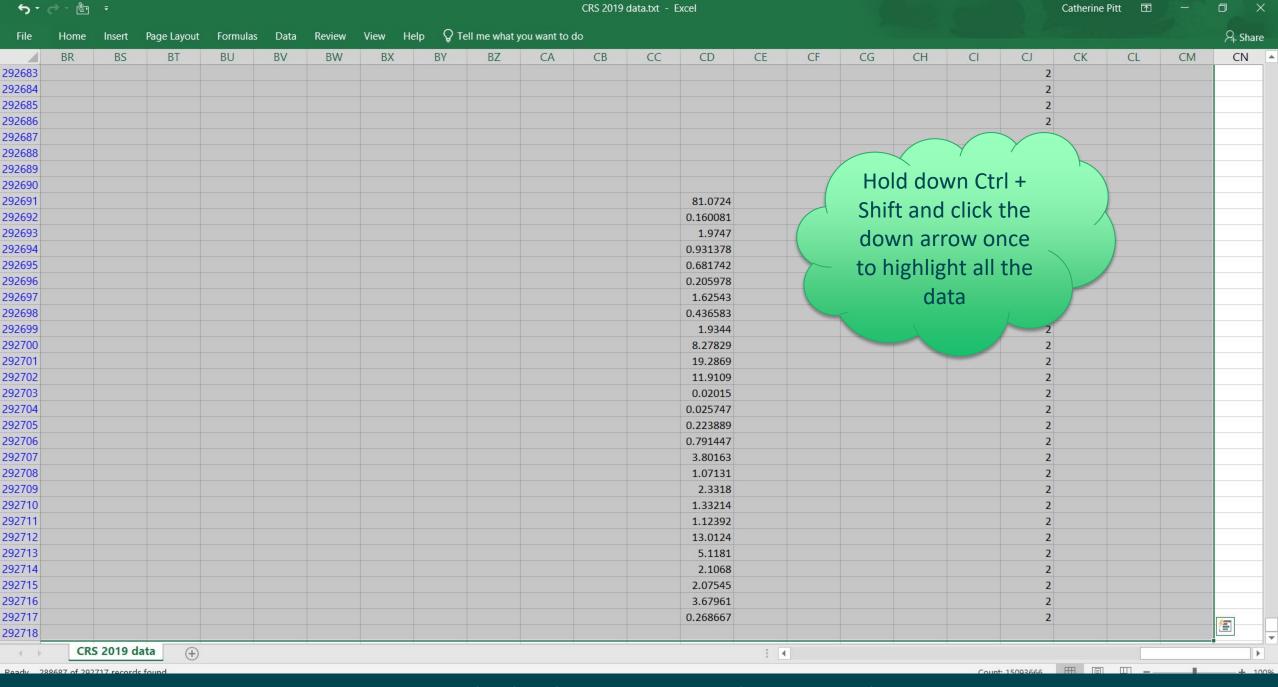


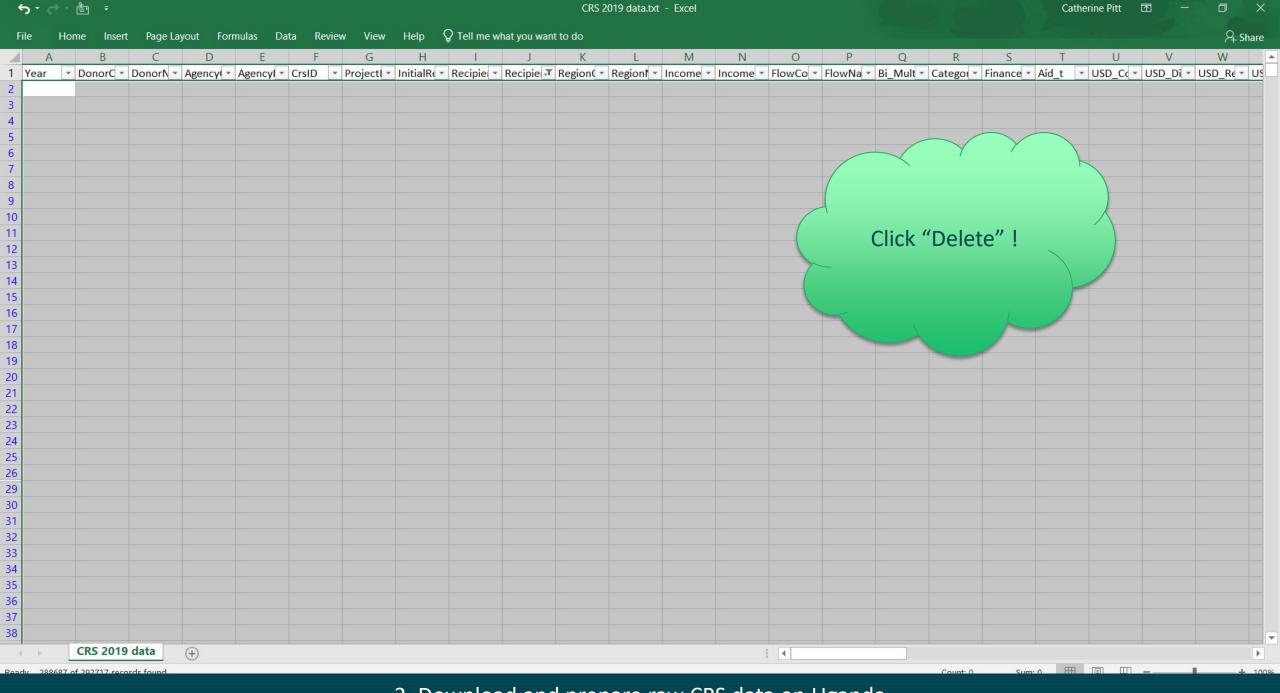


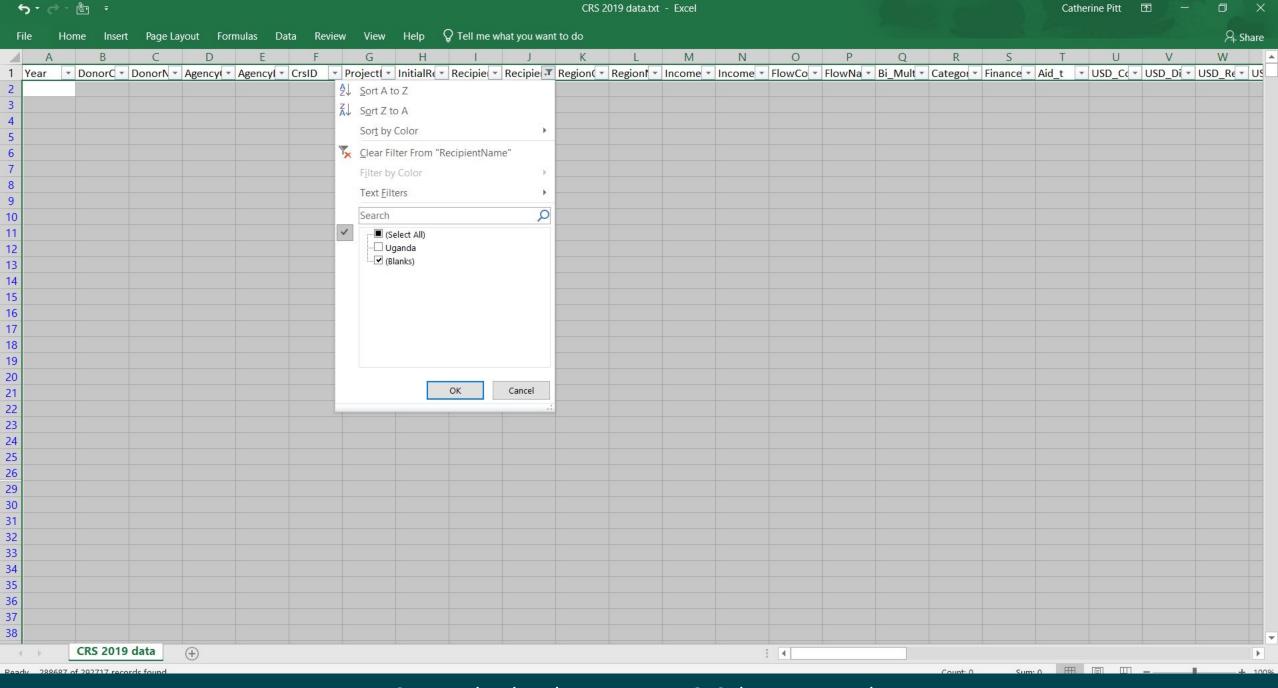


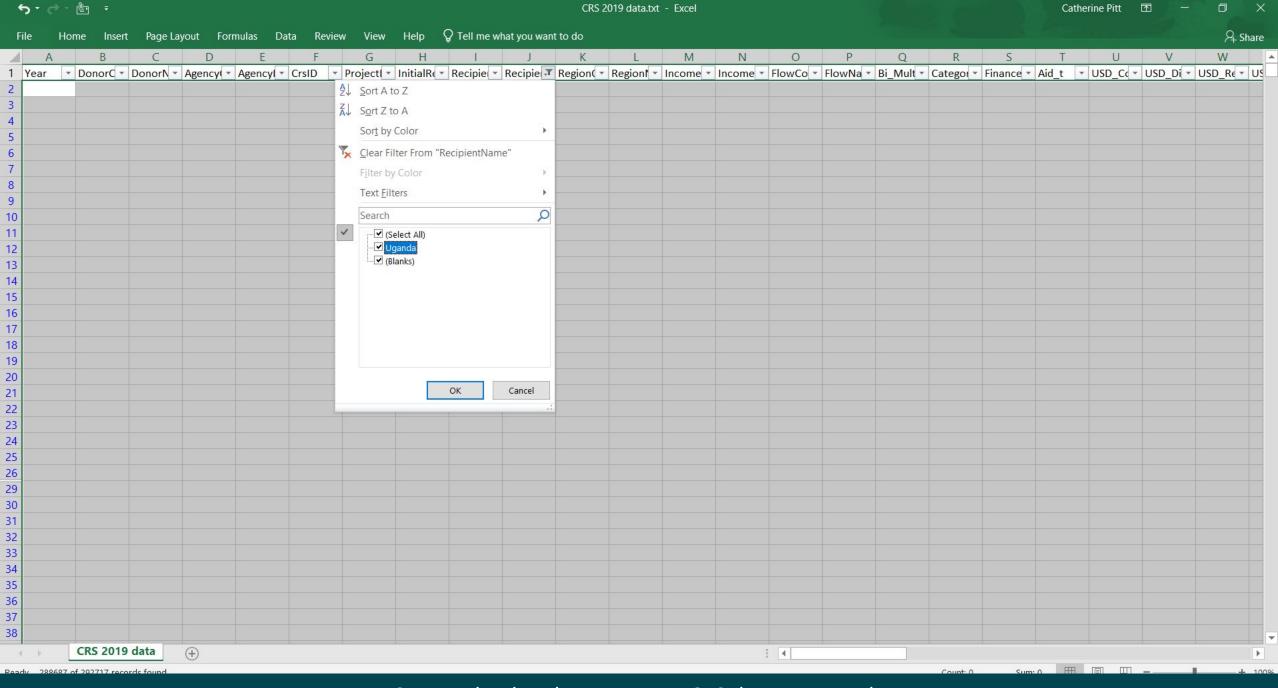


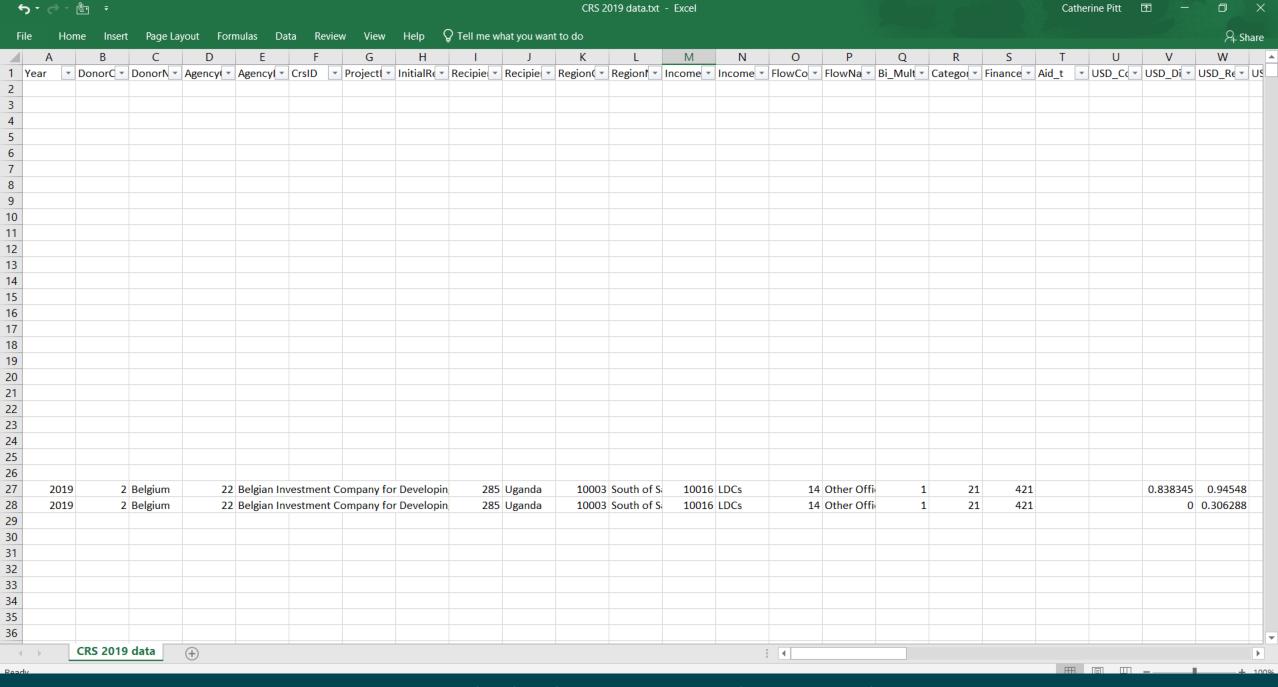


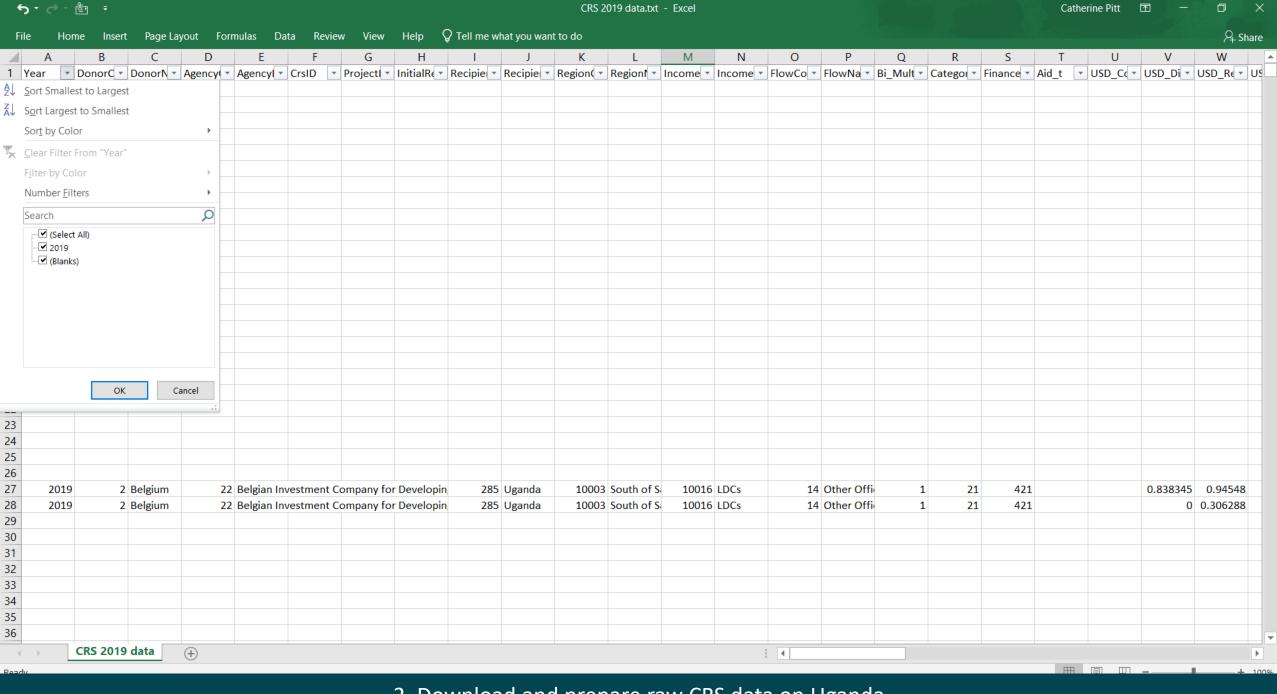


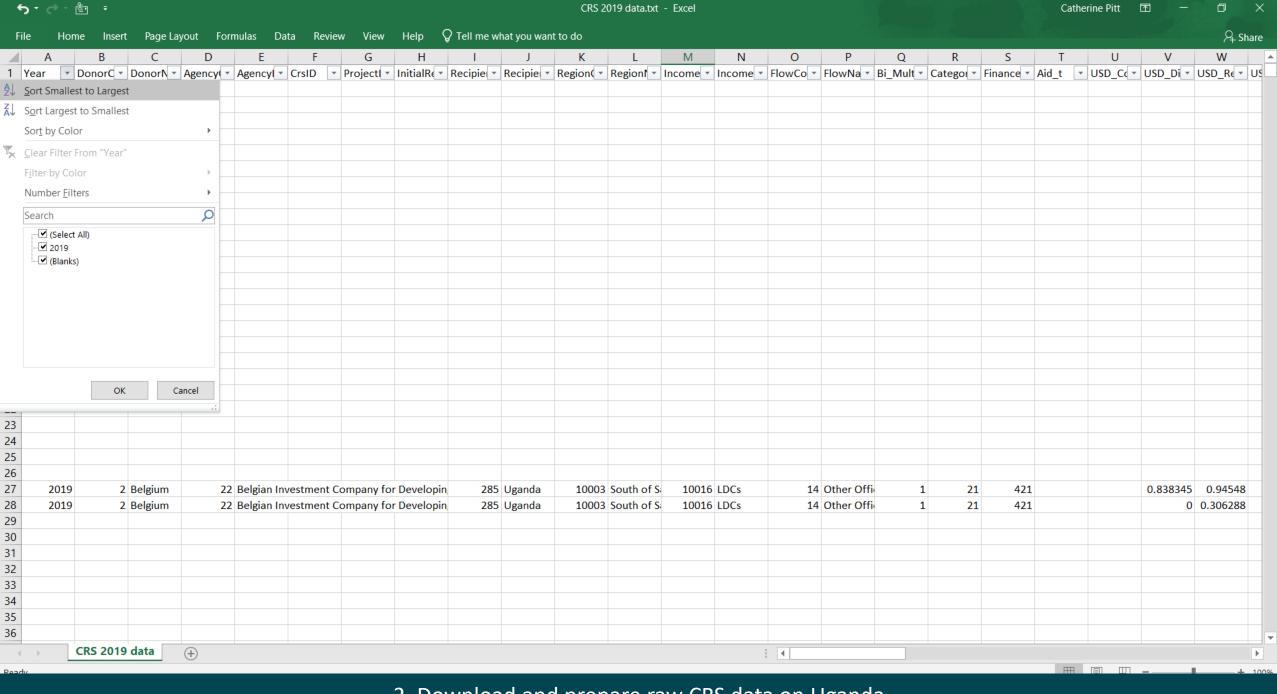


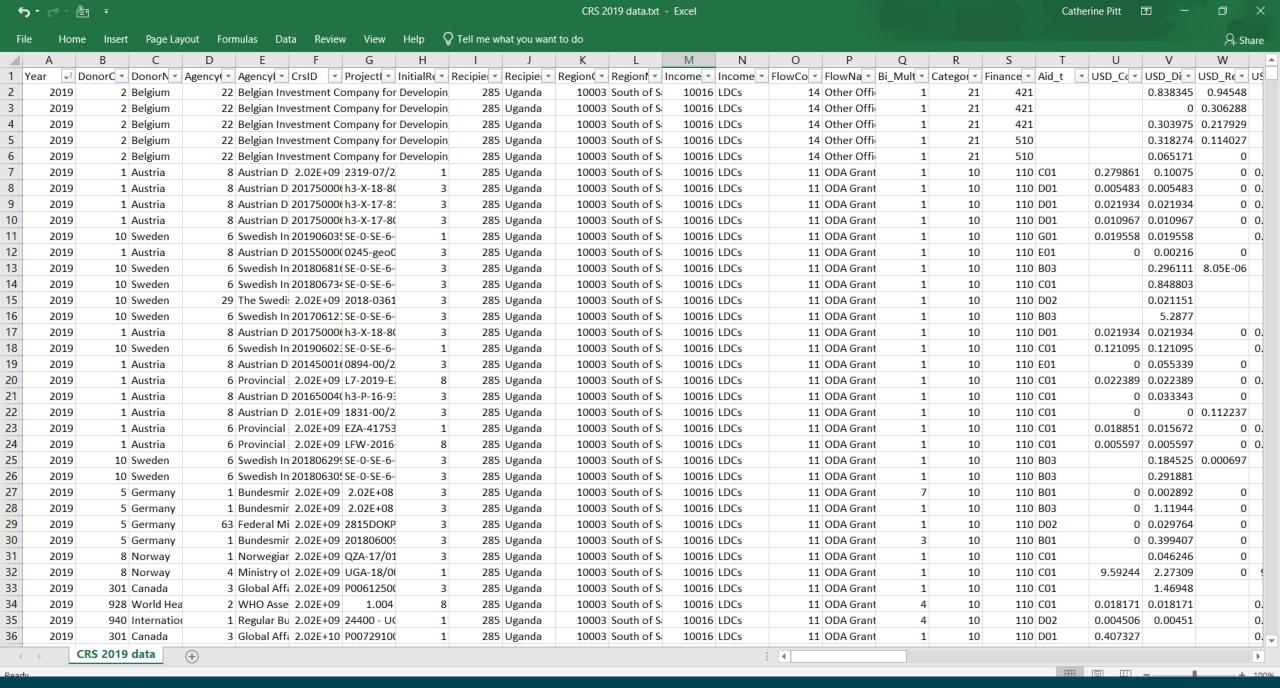


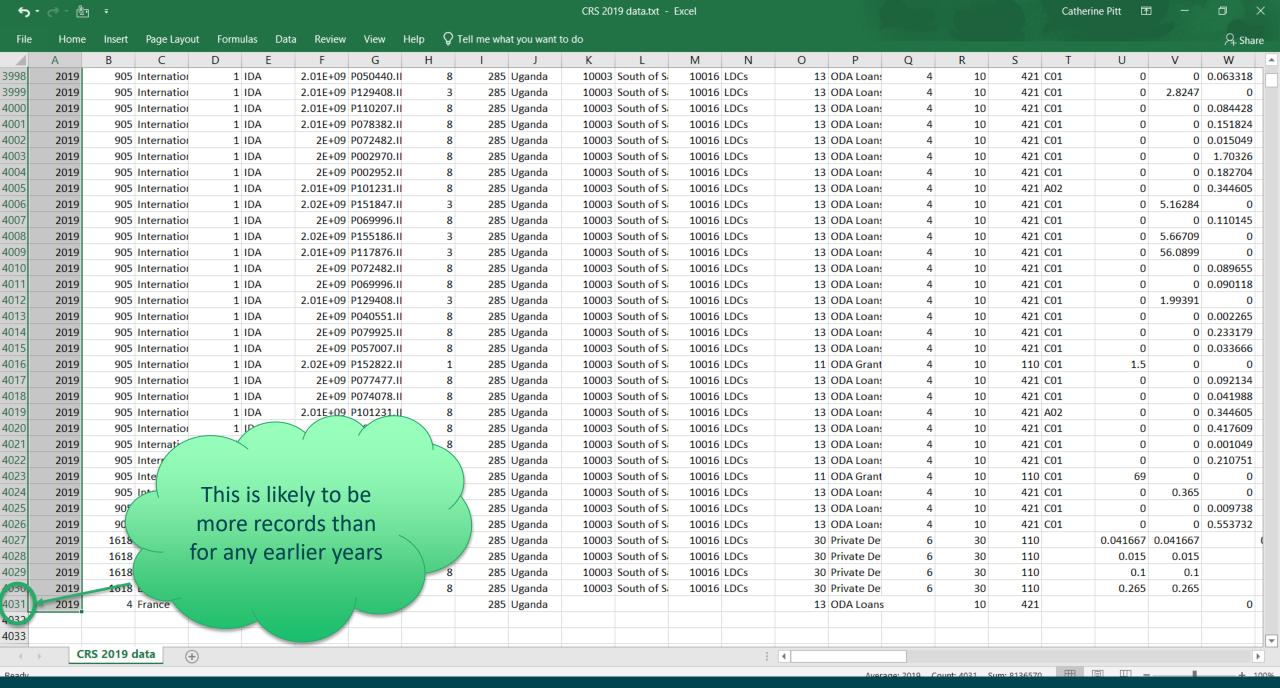












2. Download and prepare raw CRS data on Uganda

Title: Add a title

Tags: Add a tag

Authors: Catherine Pitt

Subject: Specify the subject



New

Open

Save

Save As

Histor

Print

Share

Export

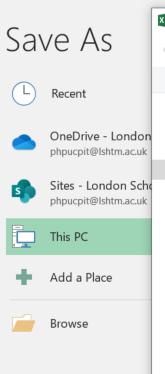
Publish

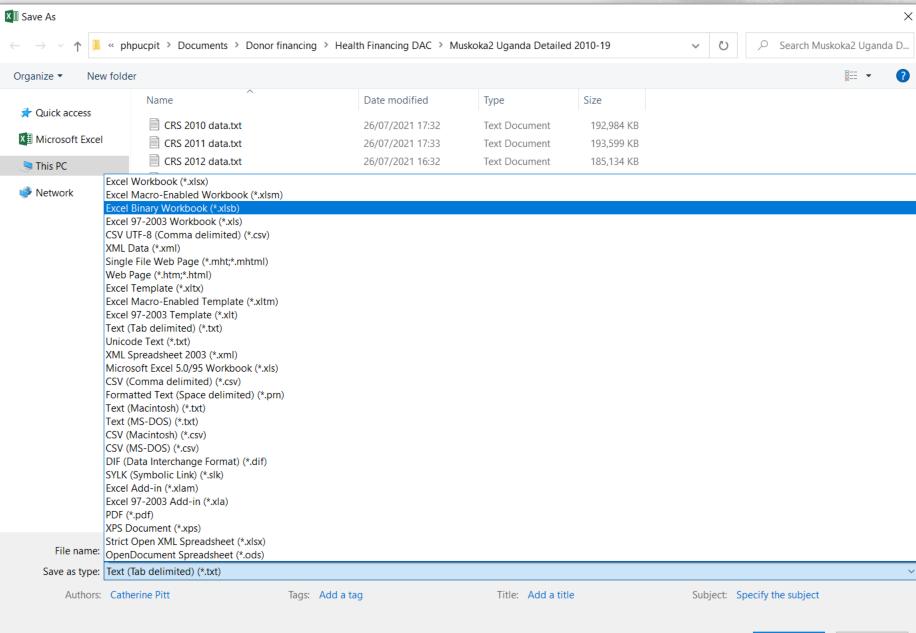
Close

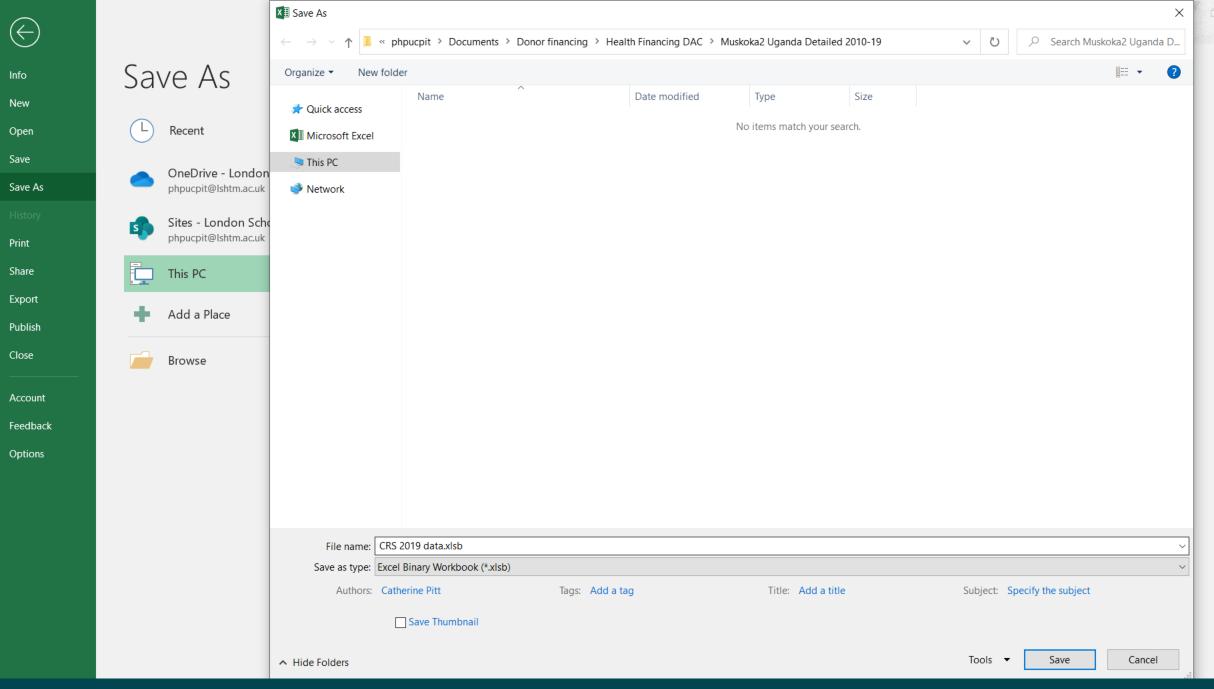
Account

Feedback

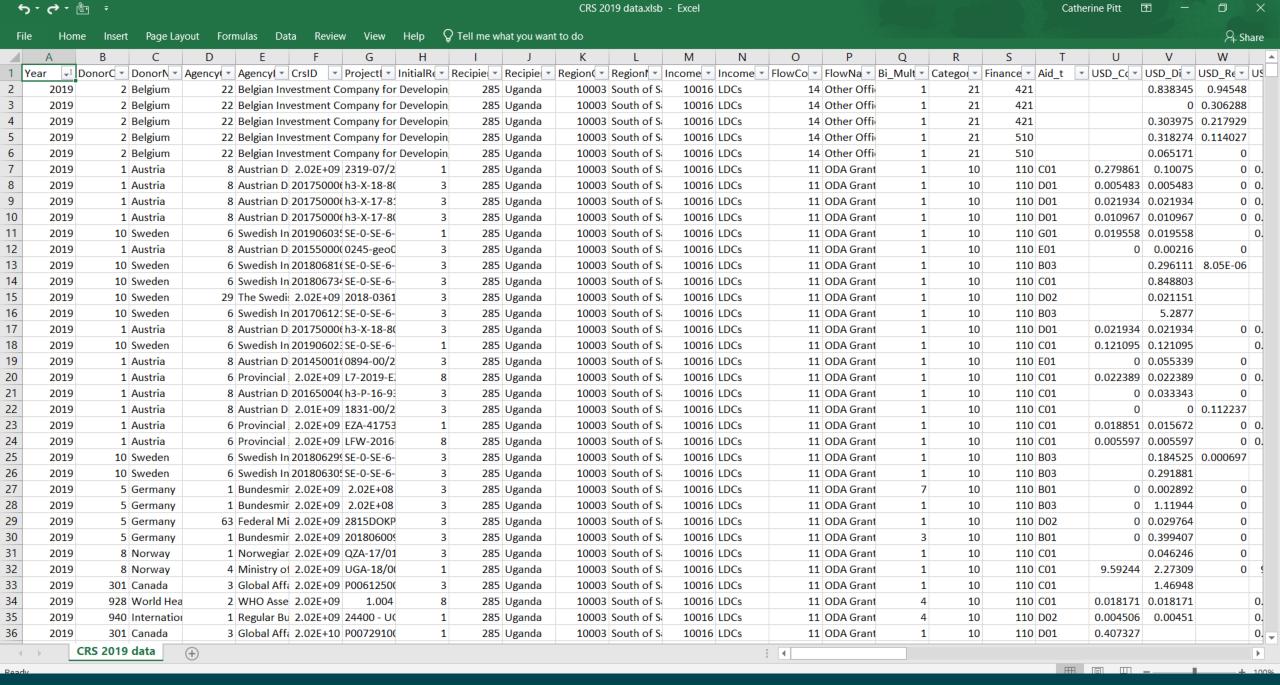
Options

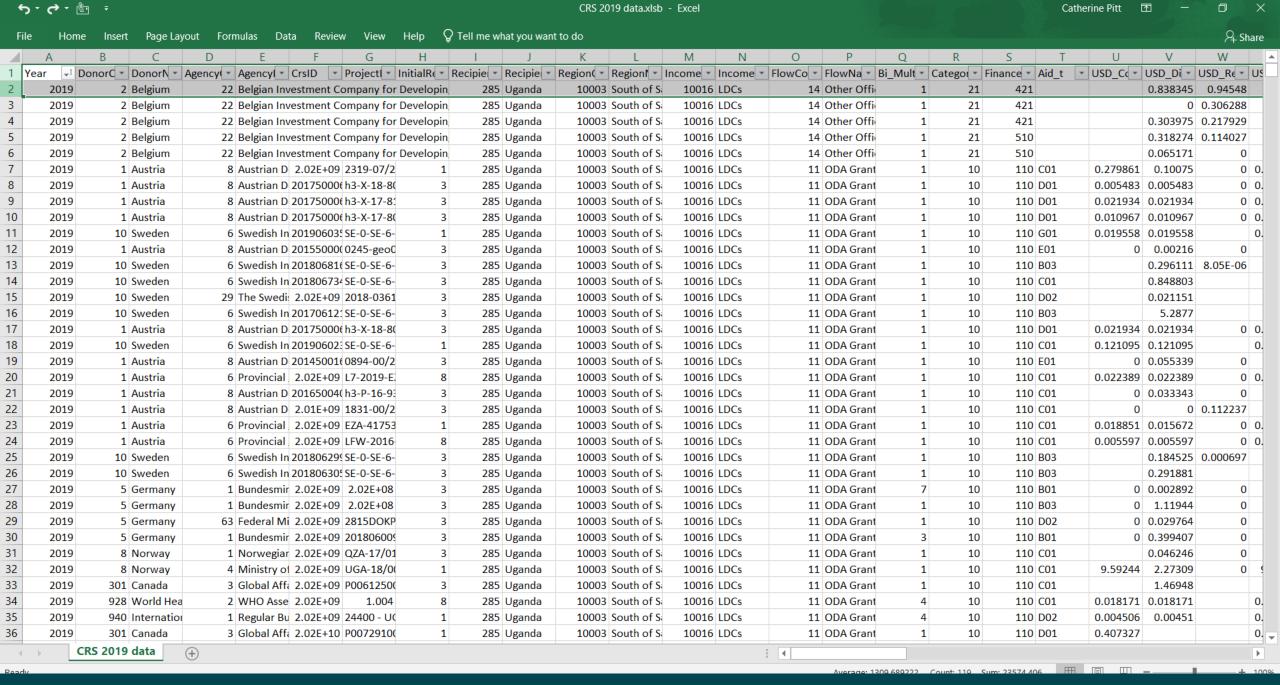


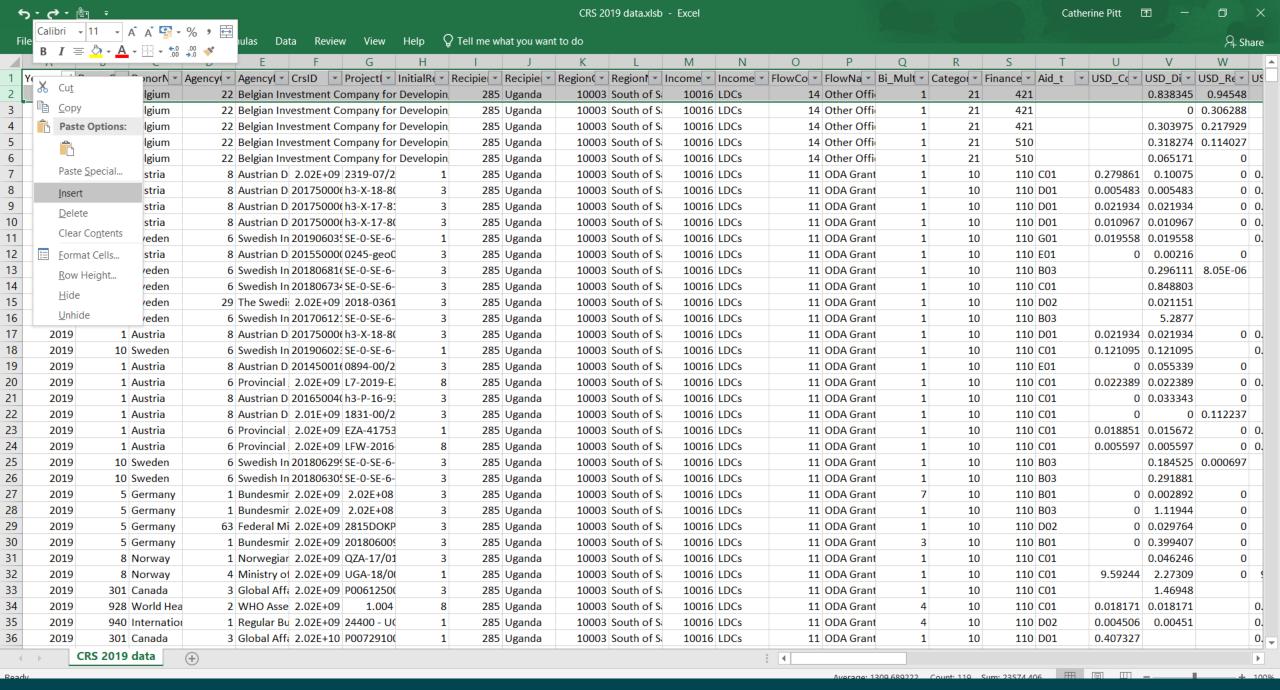


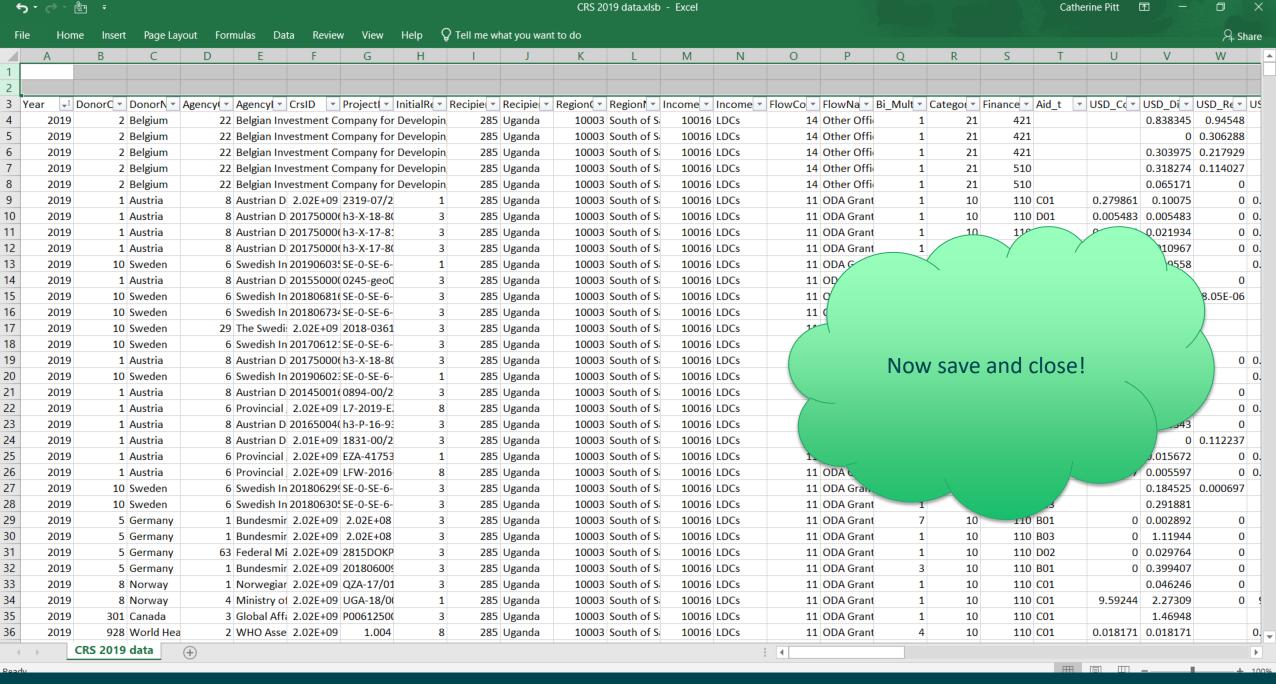


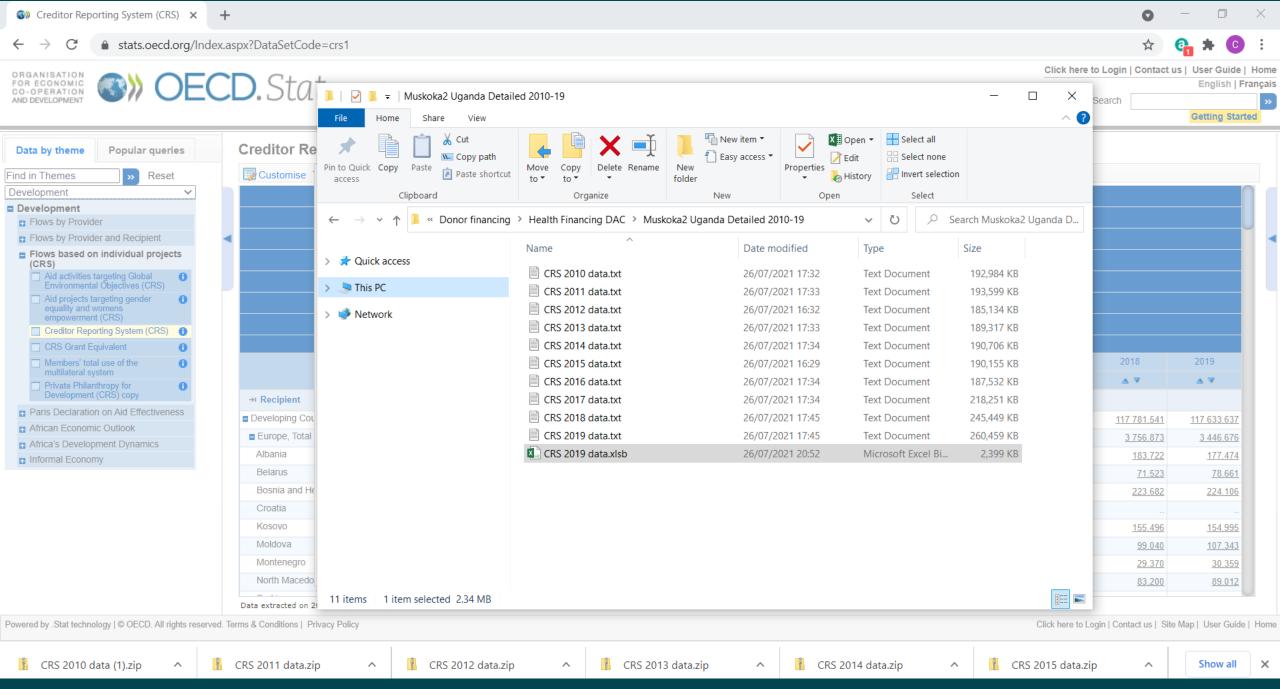
2. Download and prepare raw CRS data on Uganda











2. Download and prepare raw CRS data on Uganda

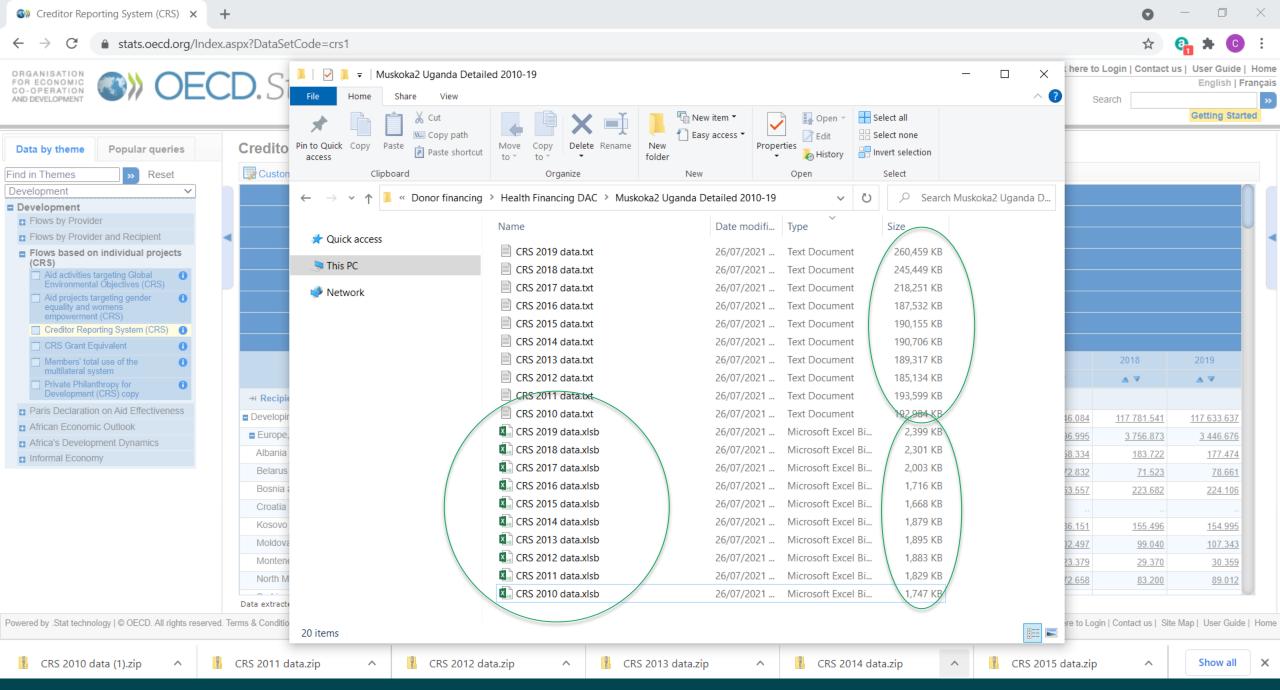


### We have just:

- Imported the .txt file with all countries' data for 2019 into Excel
- Filtered the data so that Uganda's data is <u>NOT</u> shown
- Deleted data for all other recipients, reducing the file from 292,716 records to 4,030 records
- Added two blank rows to the top (reasons will become clear later!)
- Saved as Excel Binary Workbook

### Next:

Repeat all of these steps for each year of data, 2010-2018!



2. Download and prepare raw CRS data on Uganda

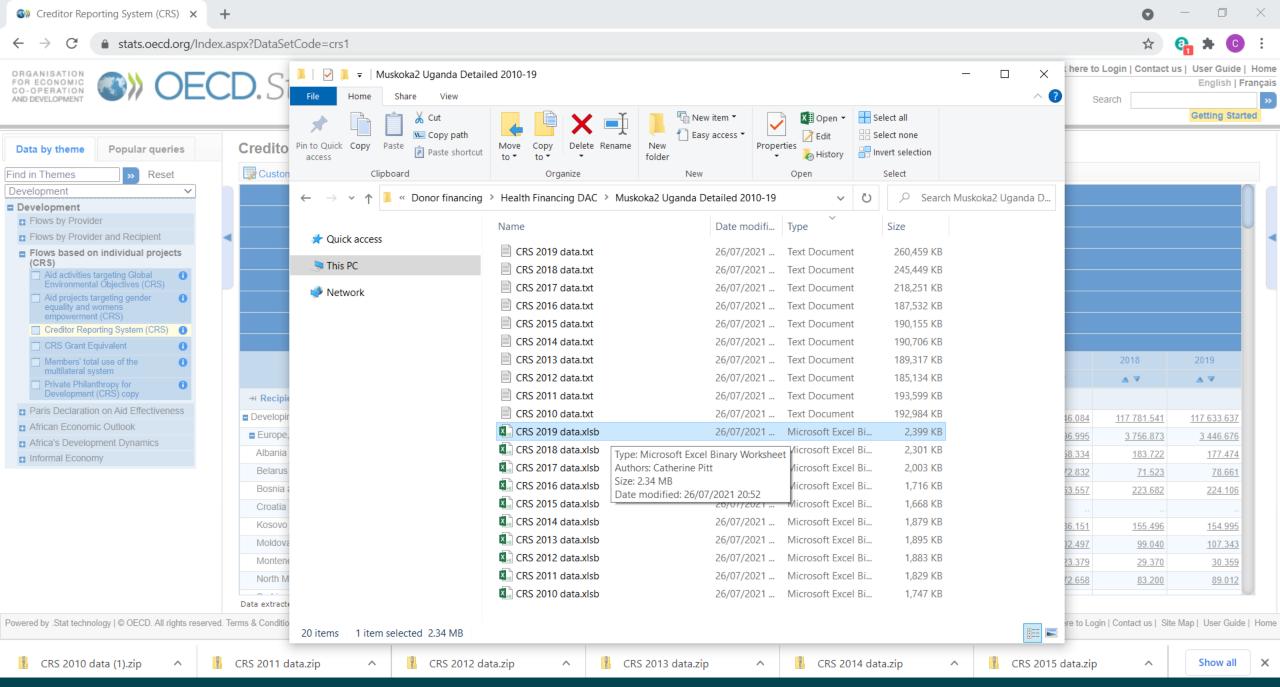


#### We now have:

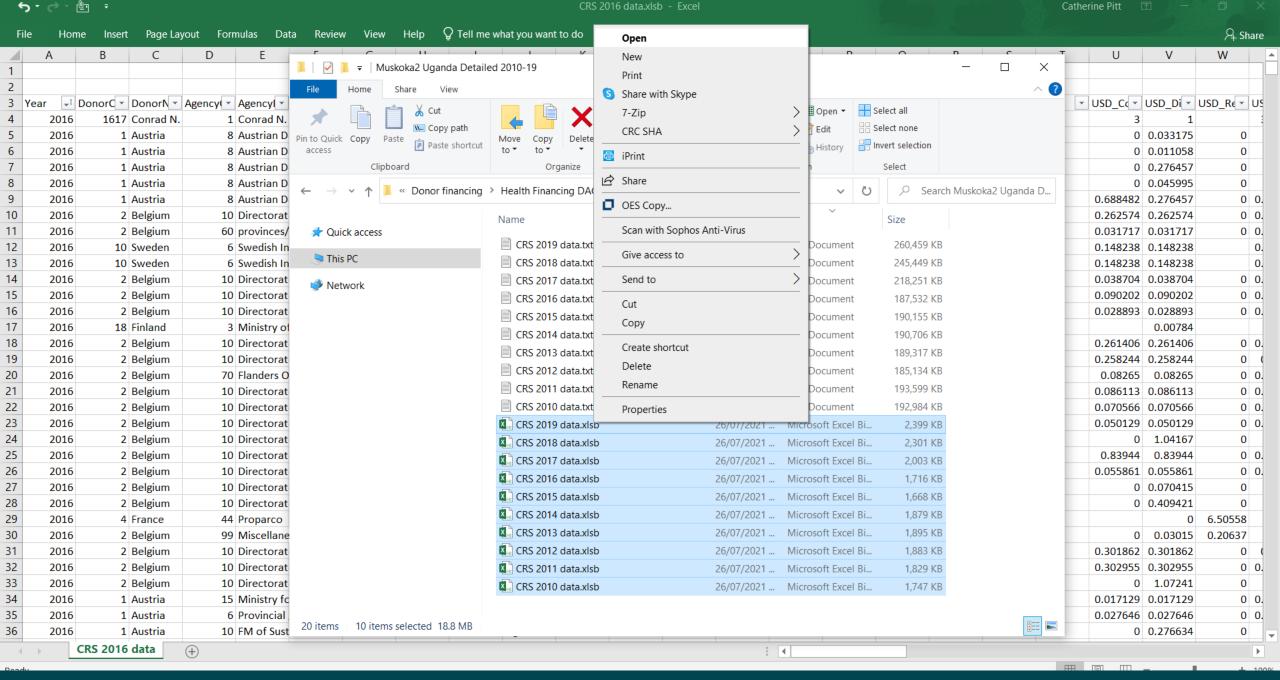
 10 Excel workbooks, each one containing all records in the CRS for all sectors for one year (for the years 2010-19)

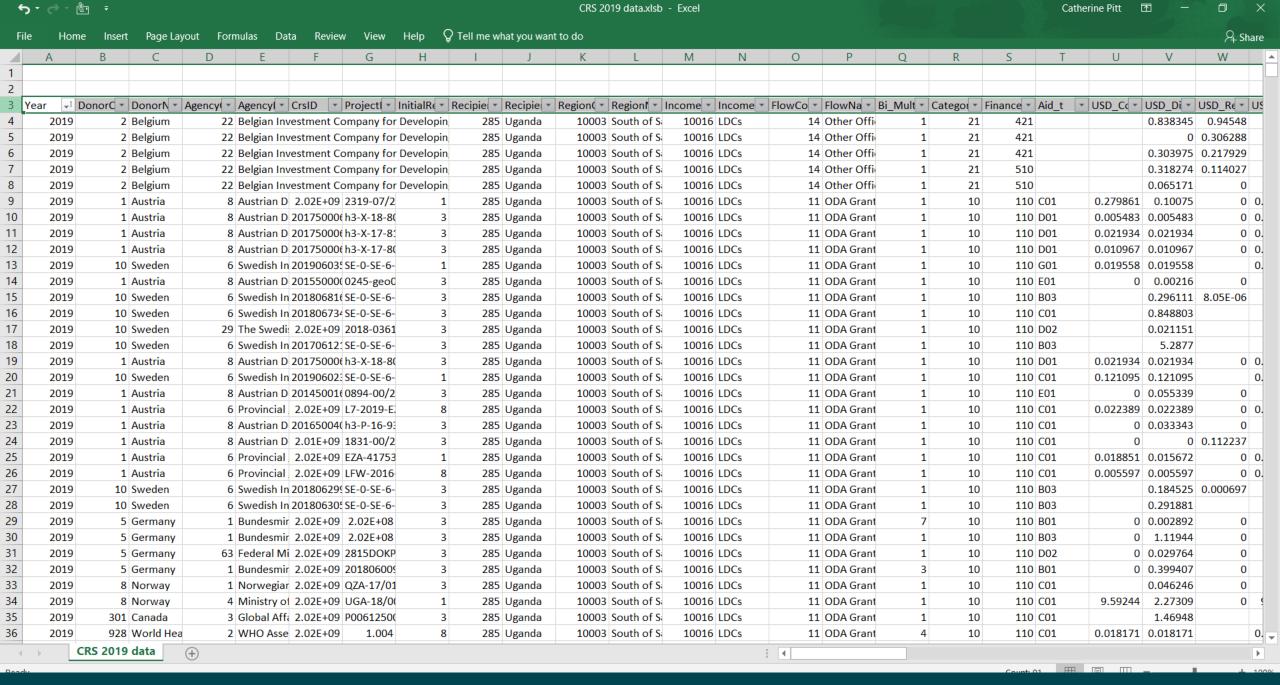
#### Next:

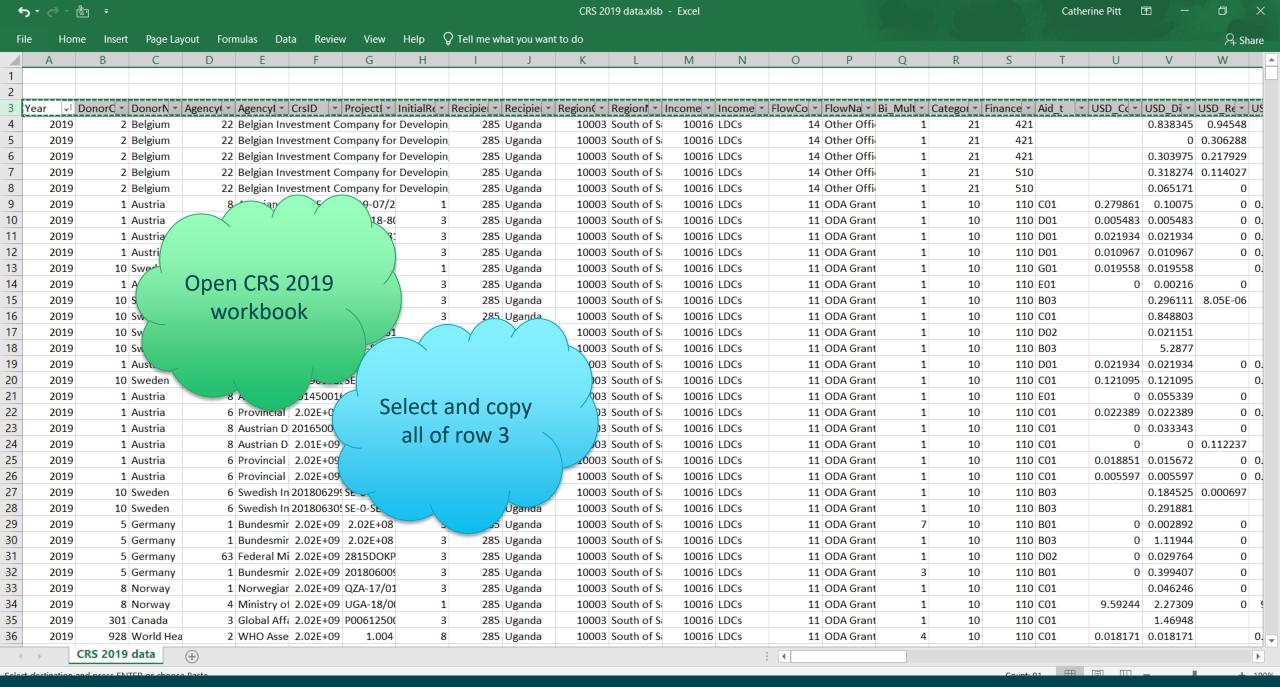
- Combine 10 files into a single file (on a single sheet)
  - ➤ Need to double check that the columns for all the separate years' data files are in the same order
- Rearrange columns so that they are in the correct order to paste into the Muskoka2 Excel workbook

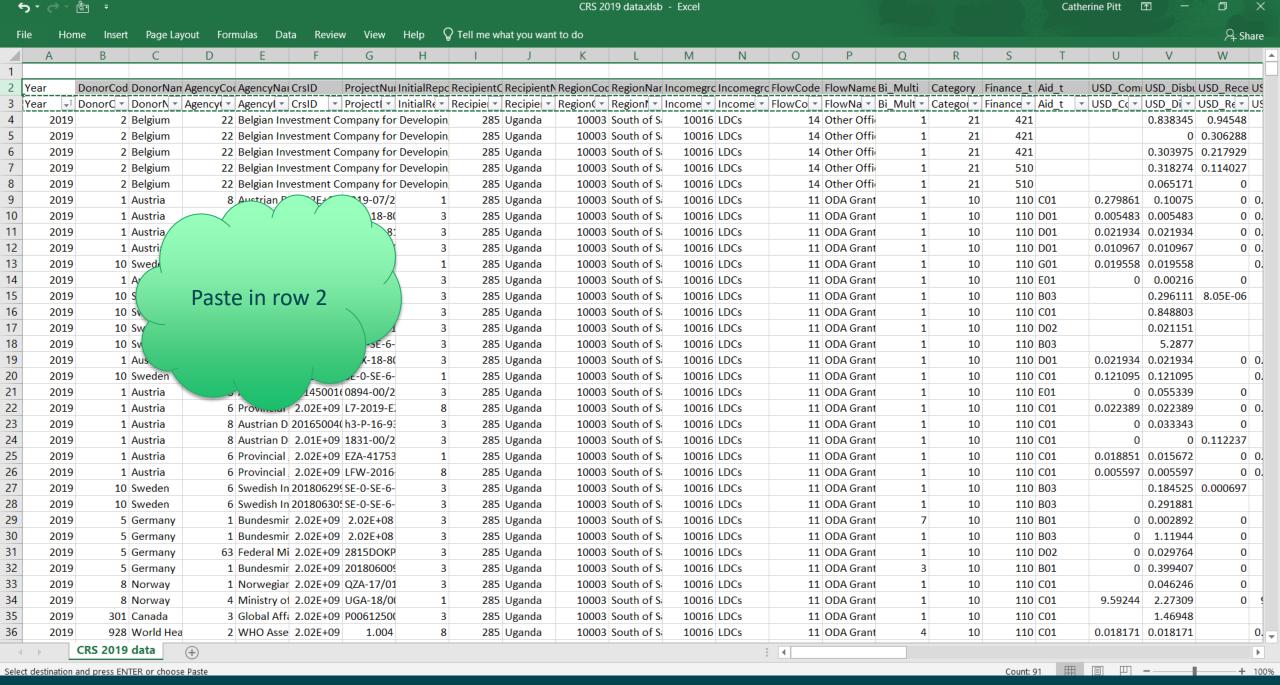


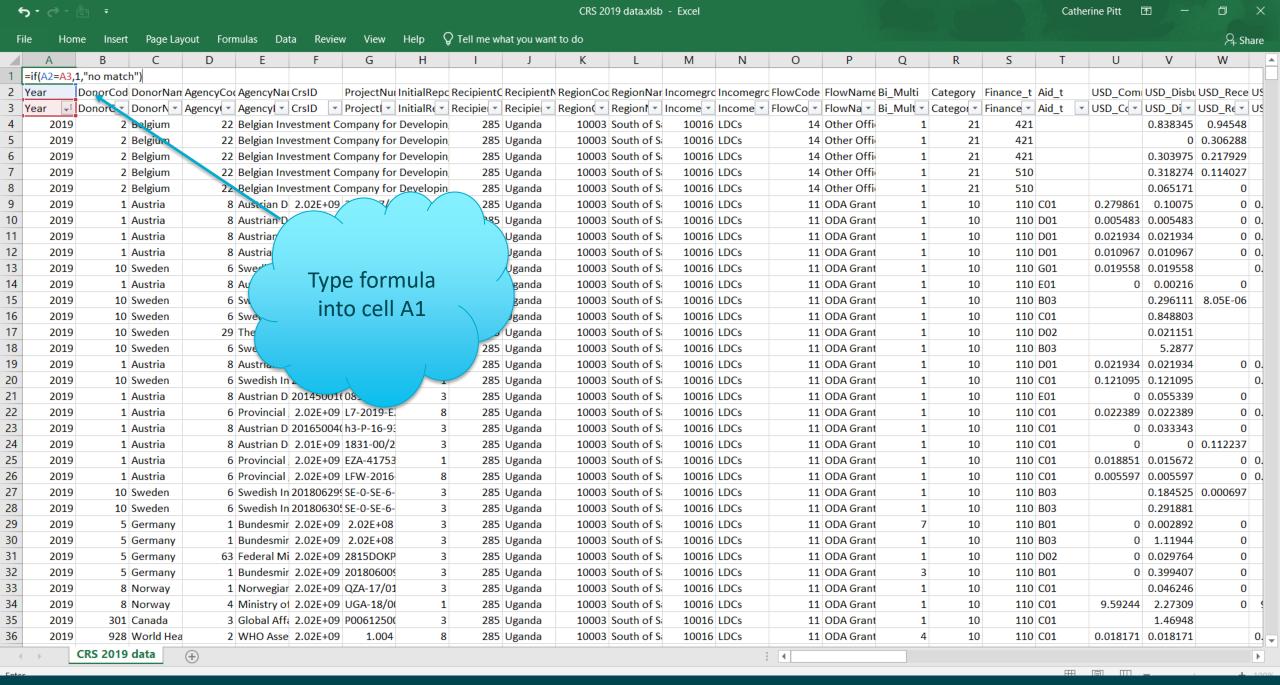
2. Download and prepare raw CRS data on Uganda

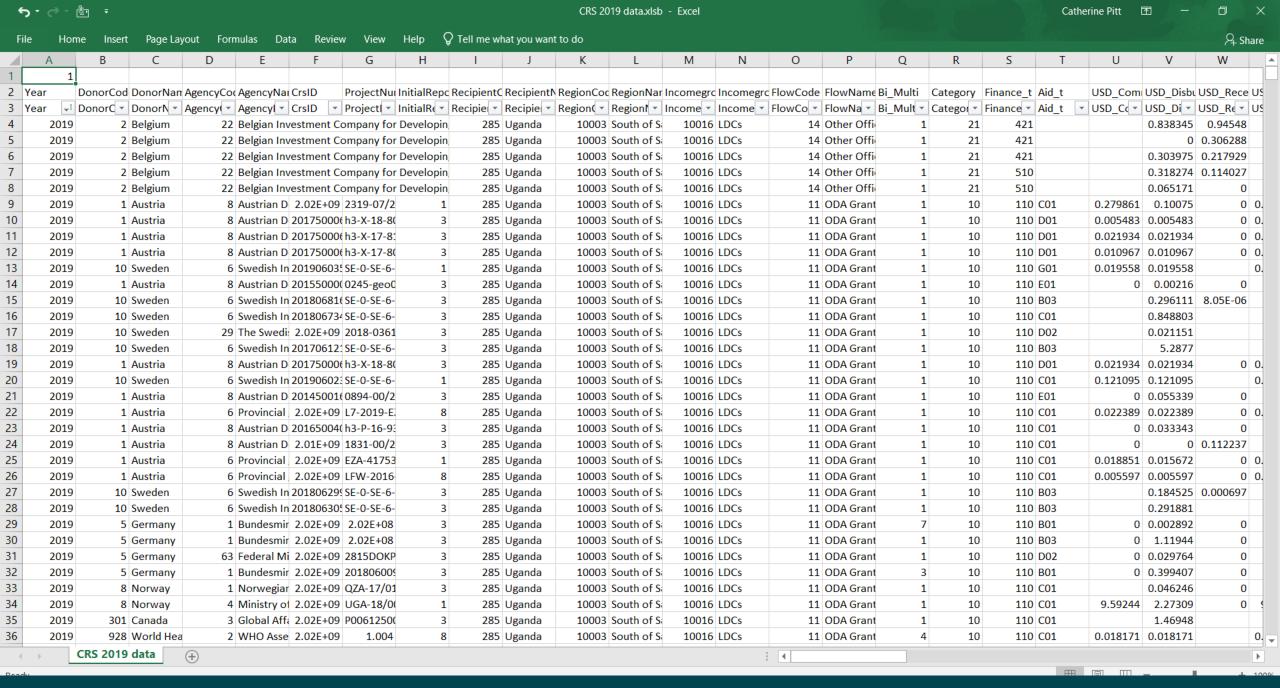


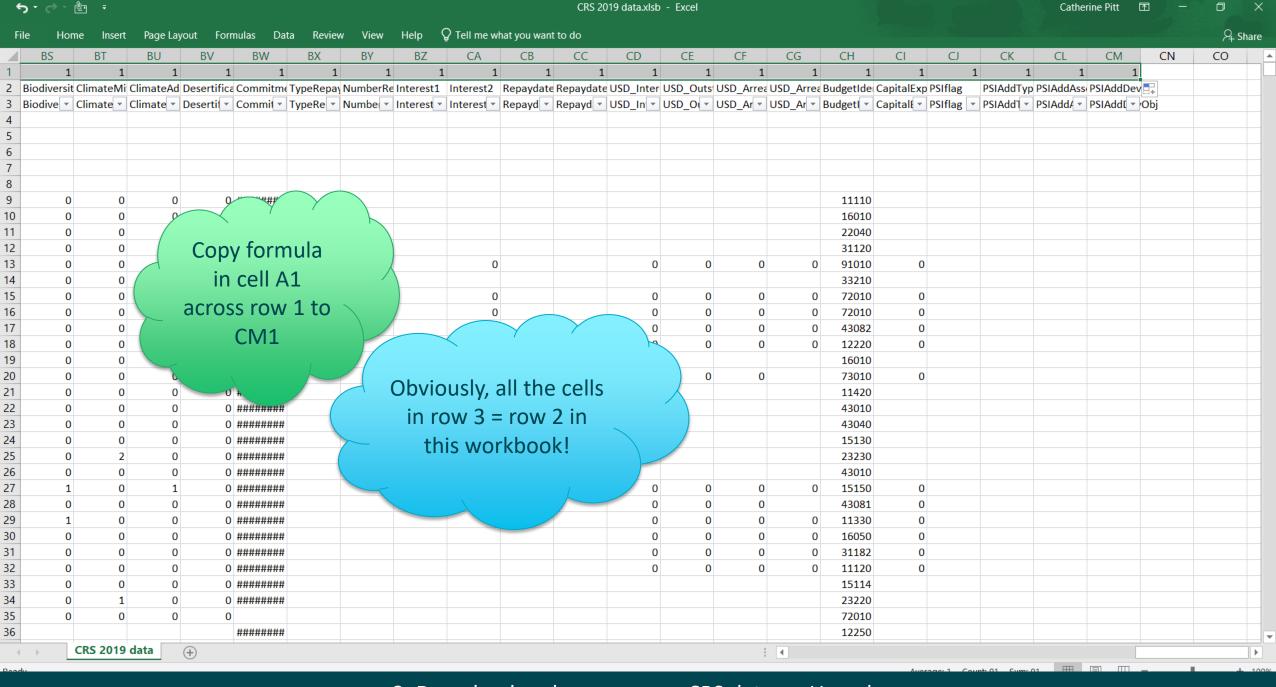


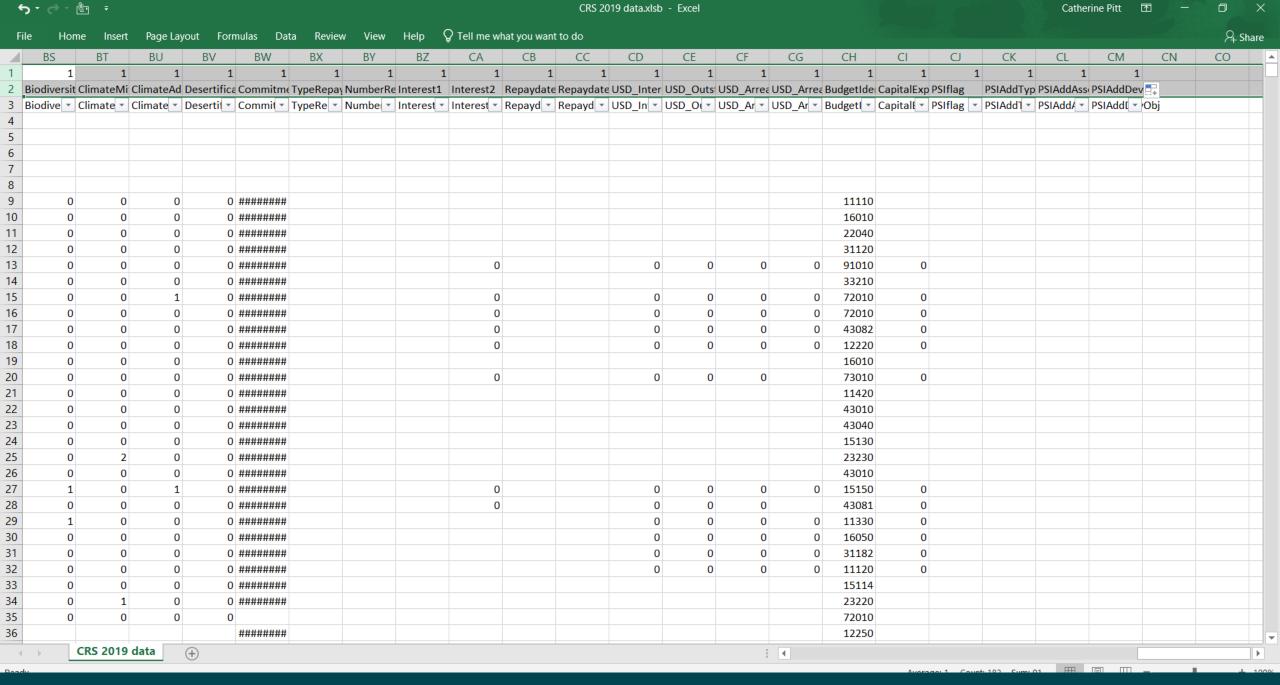


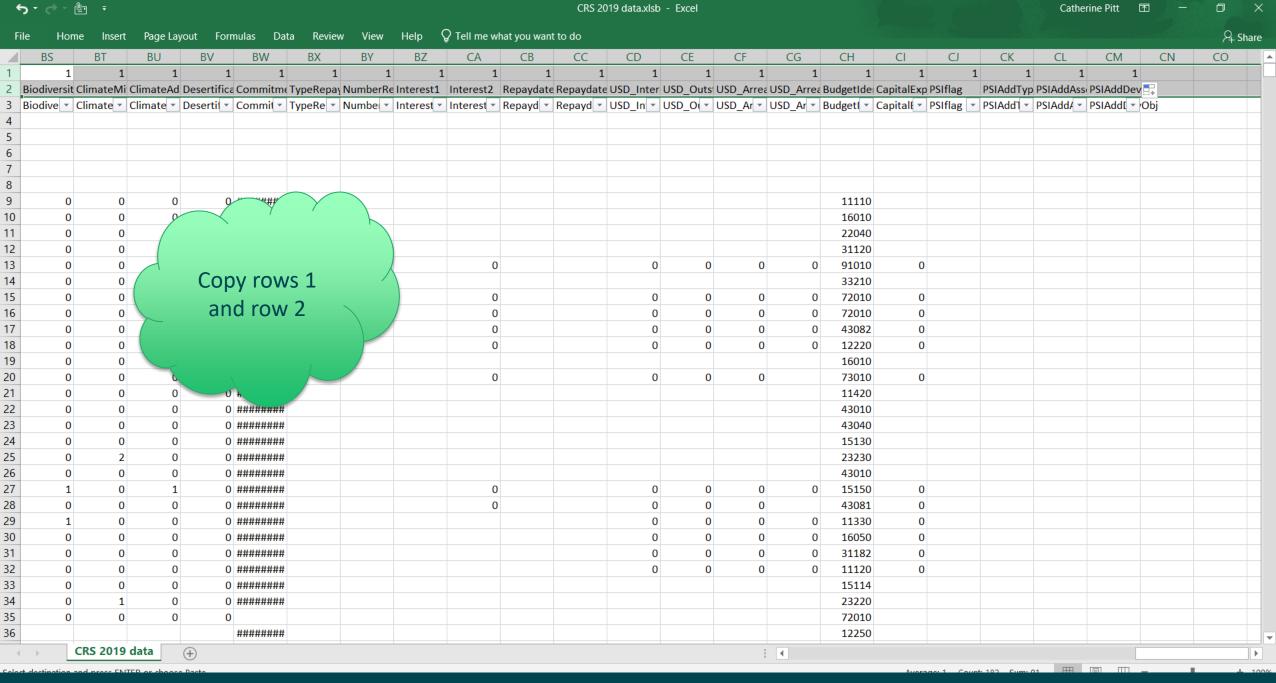


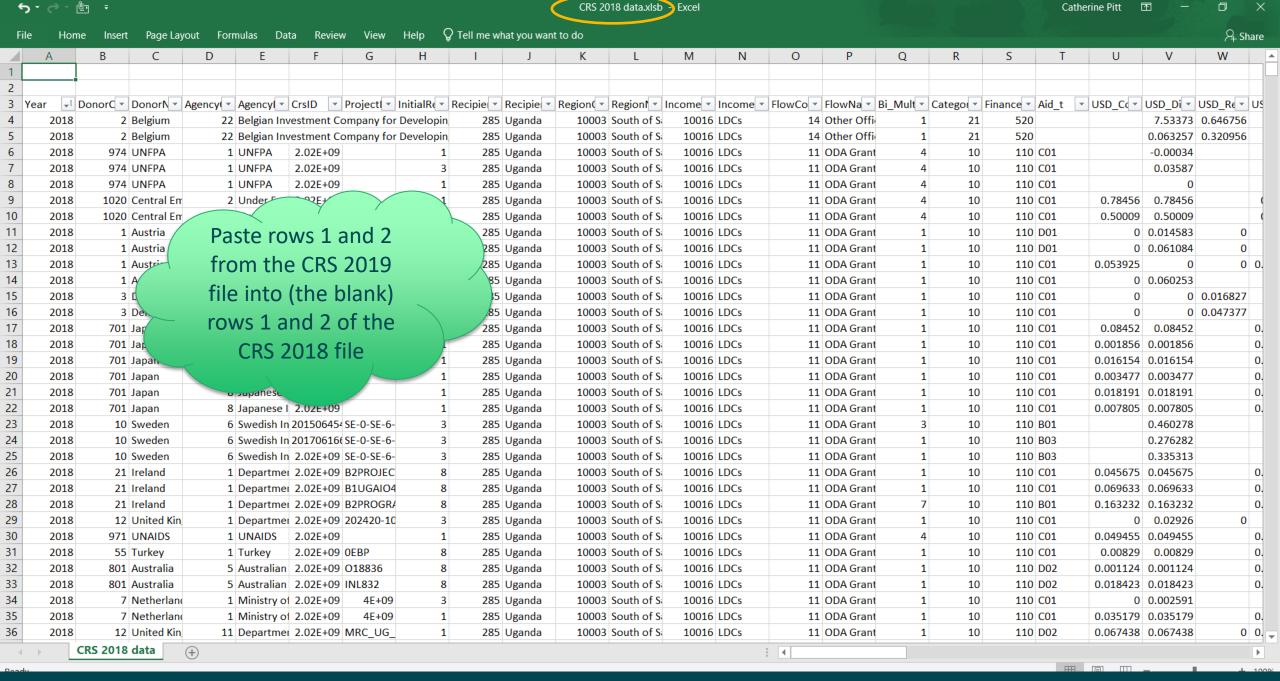


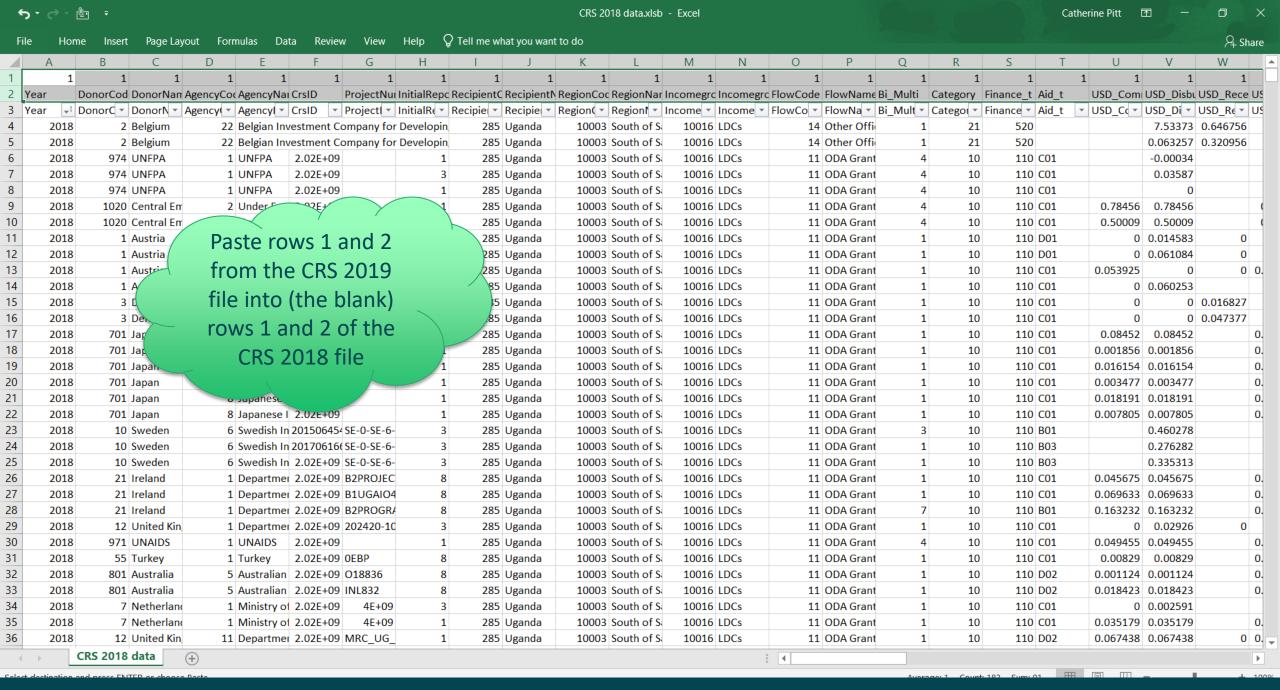


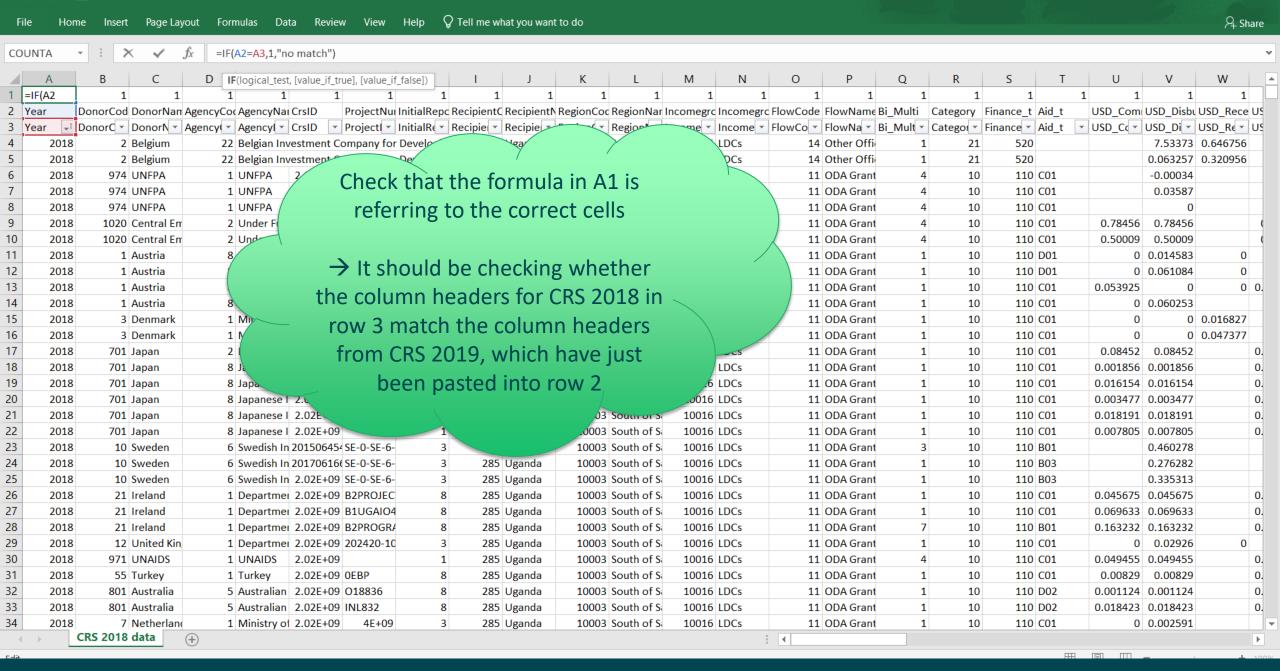


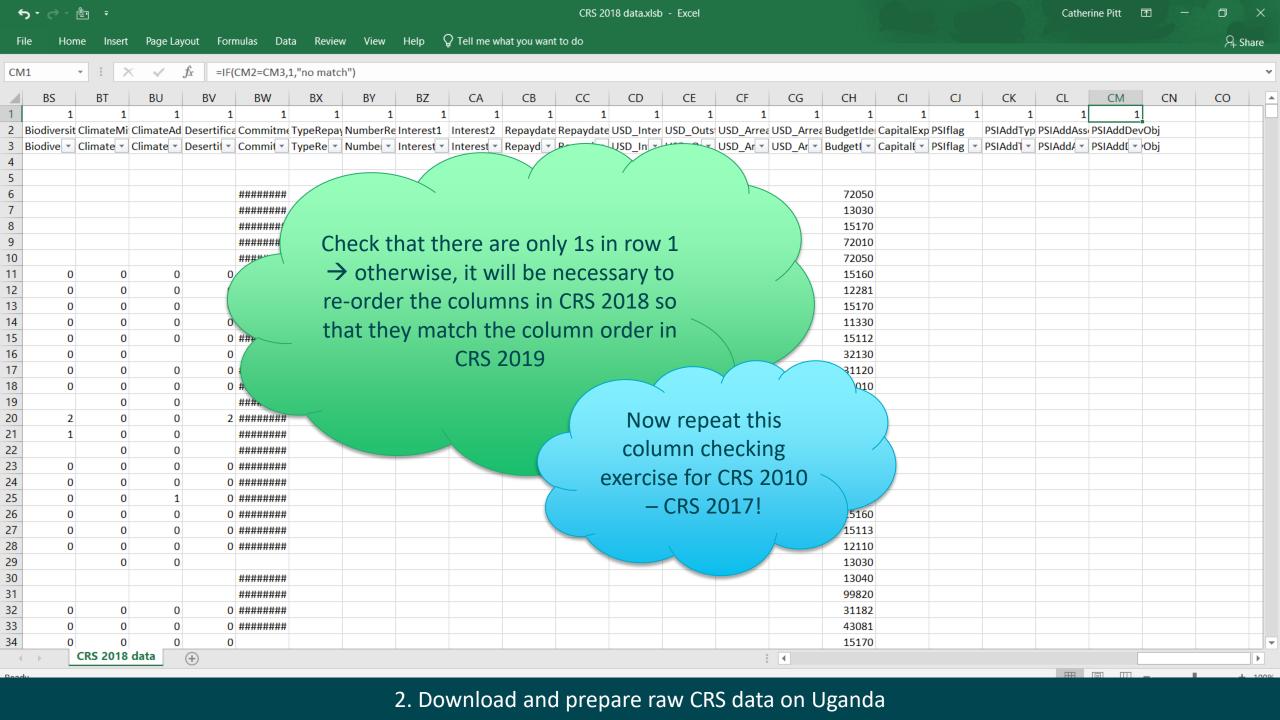


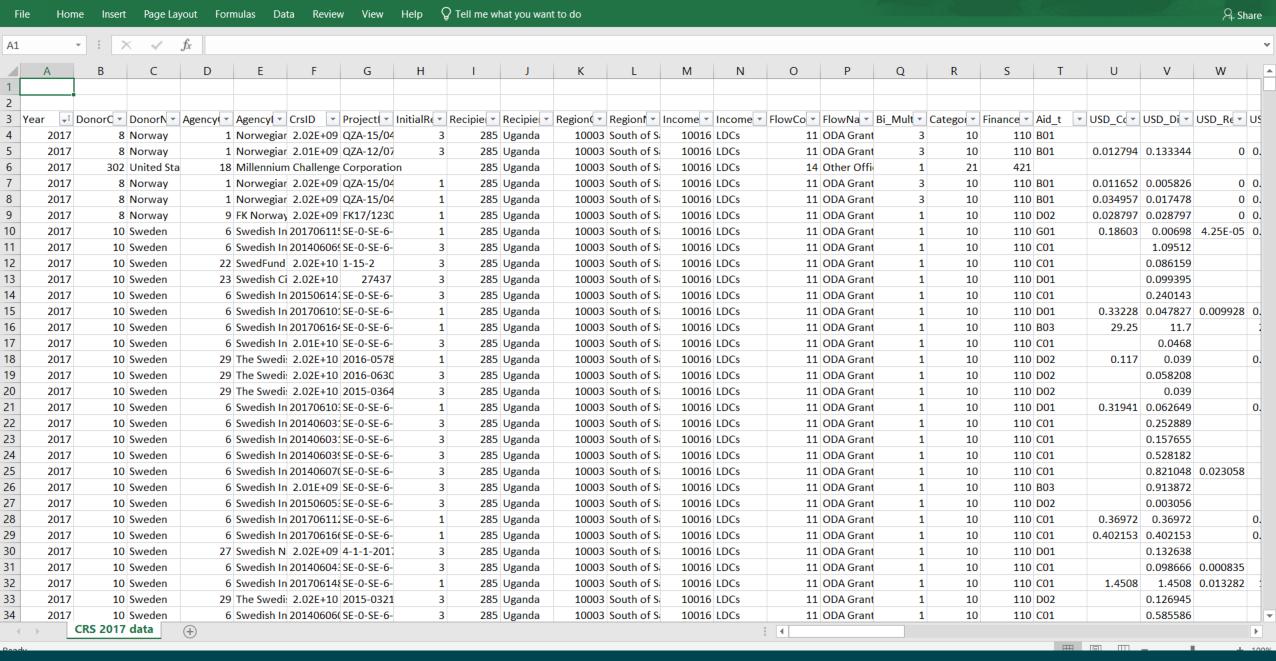










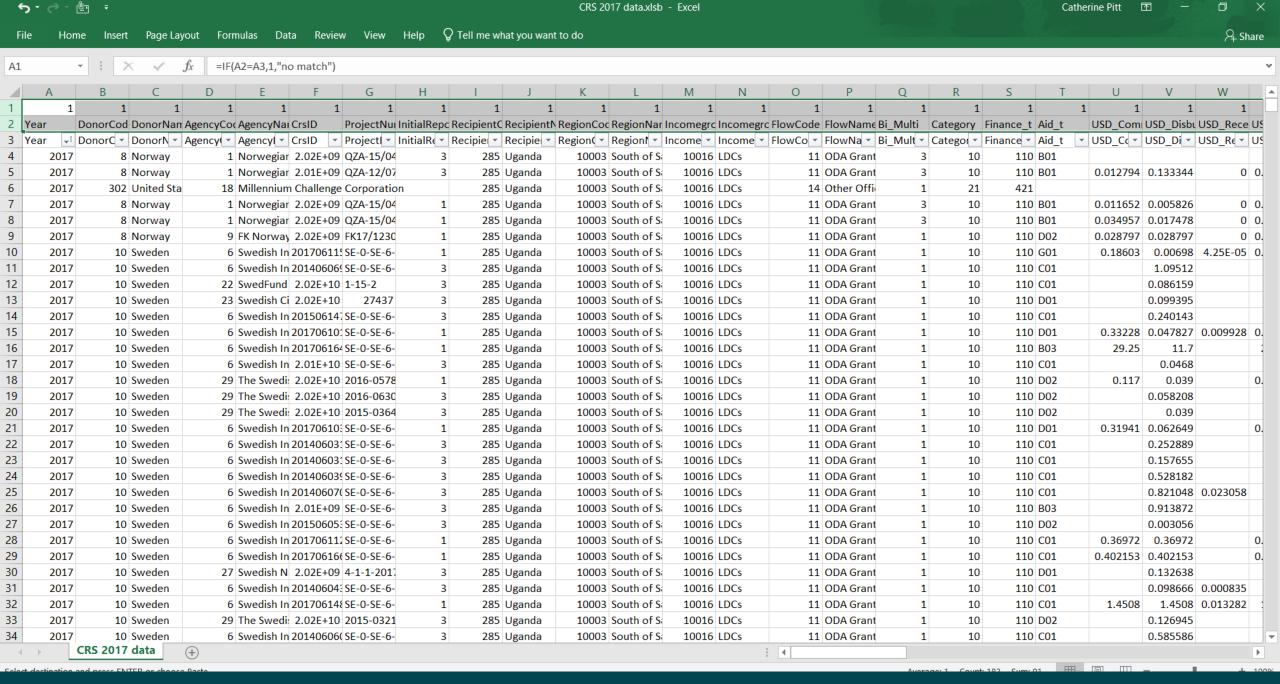


回

Catherine Pitt

不

**5 - 2 - ₽** -



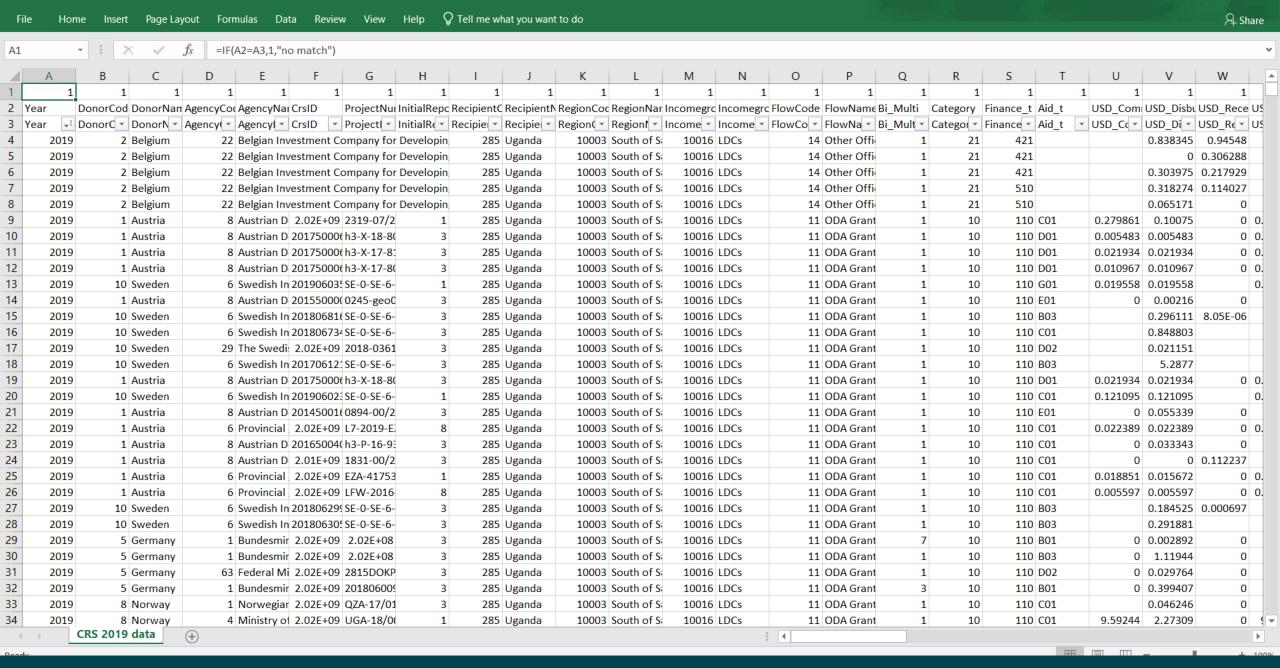


#### We now have:

- 10 Excel workbooks, each one containing all records in the CRS for Uganda for all sectors for one year (for the years 2010-19)
- We have checked that the columns are all identical and in an identical order across all the years

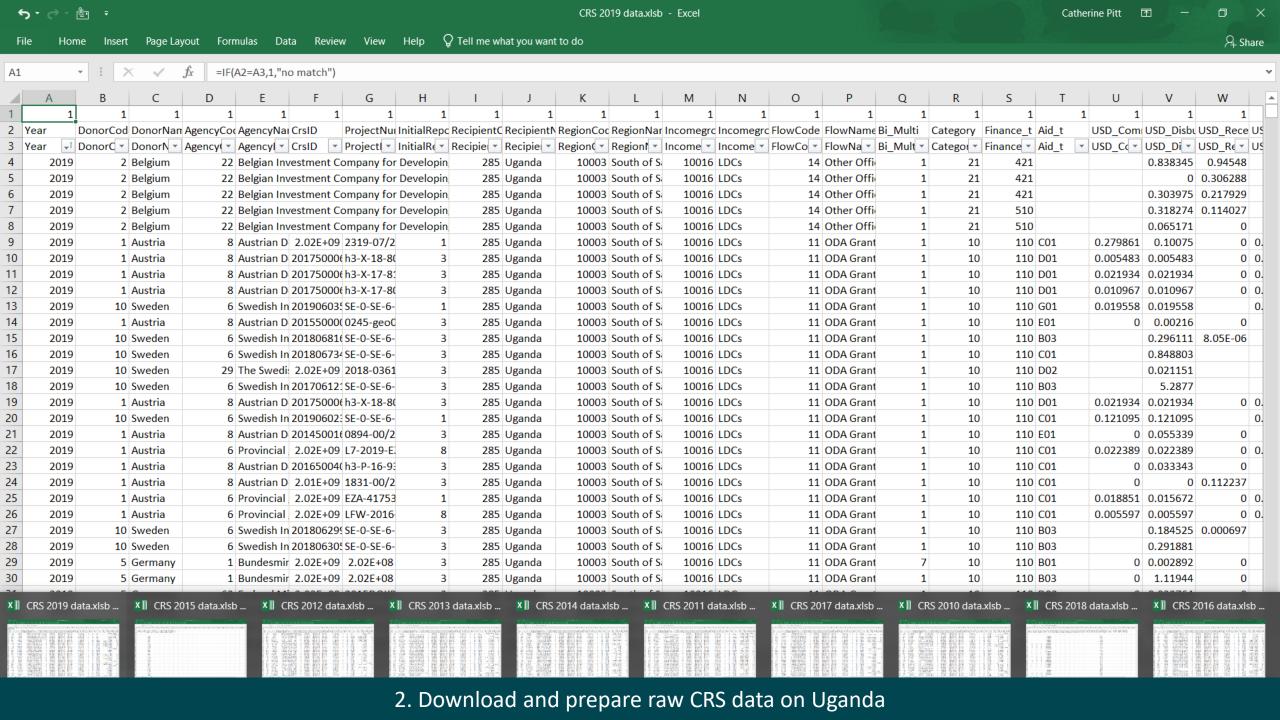
### Next:

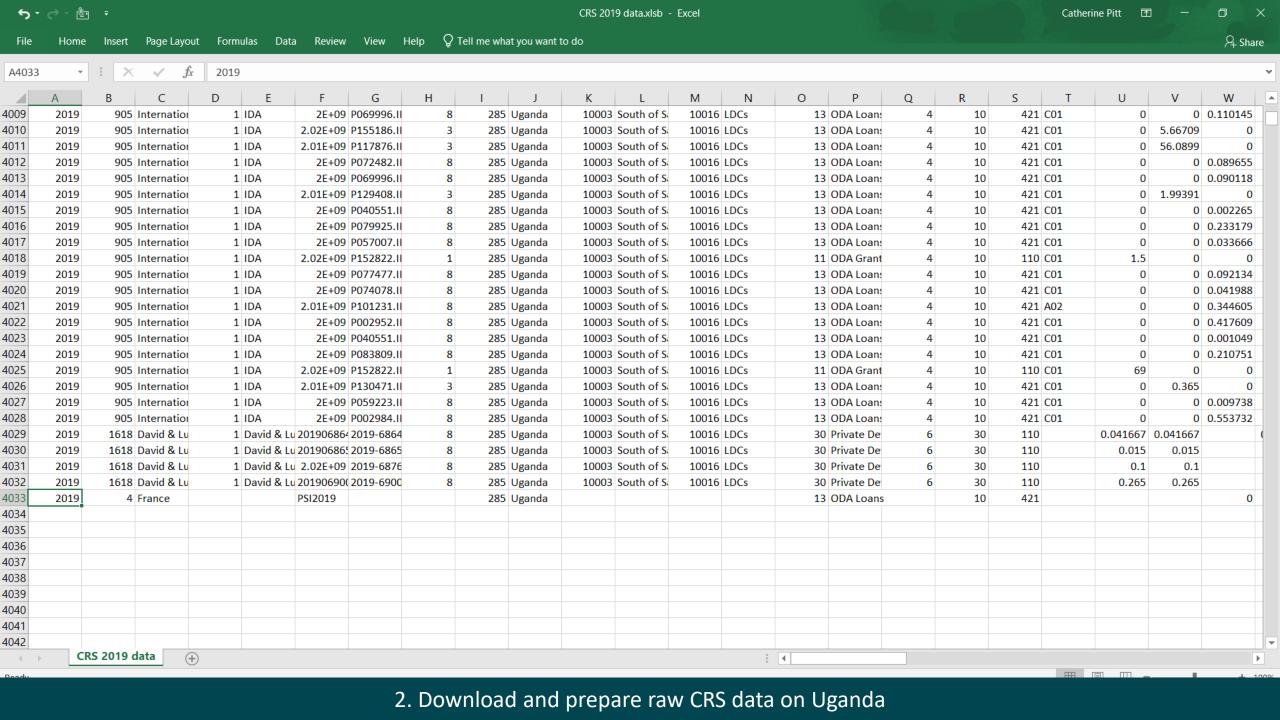
- Combine 10 files into a single file (on a single sheet)
- Rearrange columns so that they are in the correct order to paste into the Muskoka2 Excel workbook

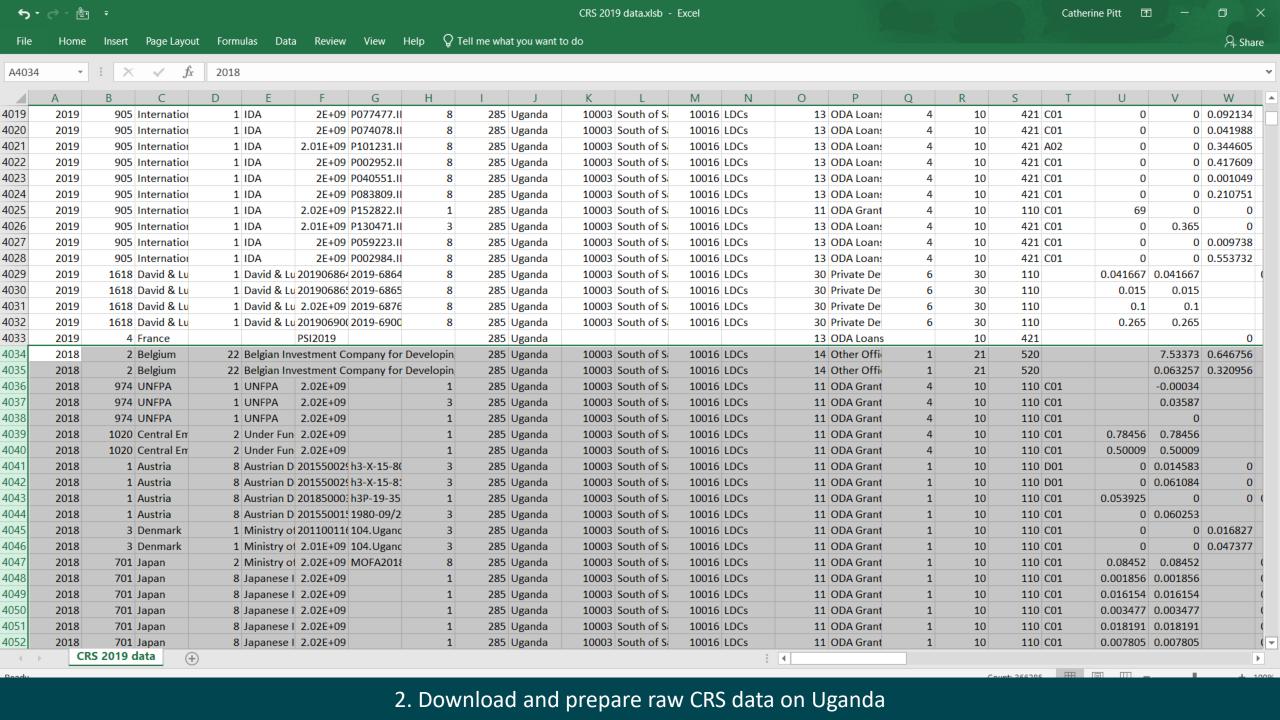


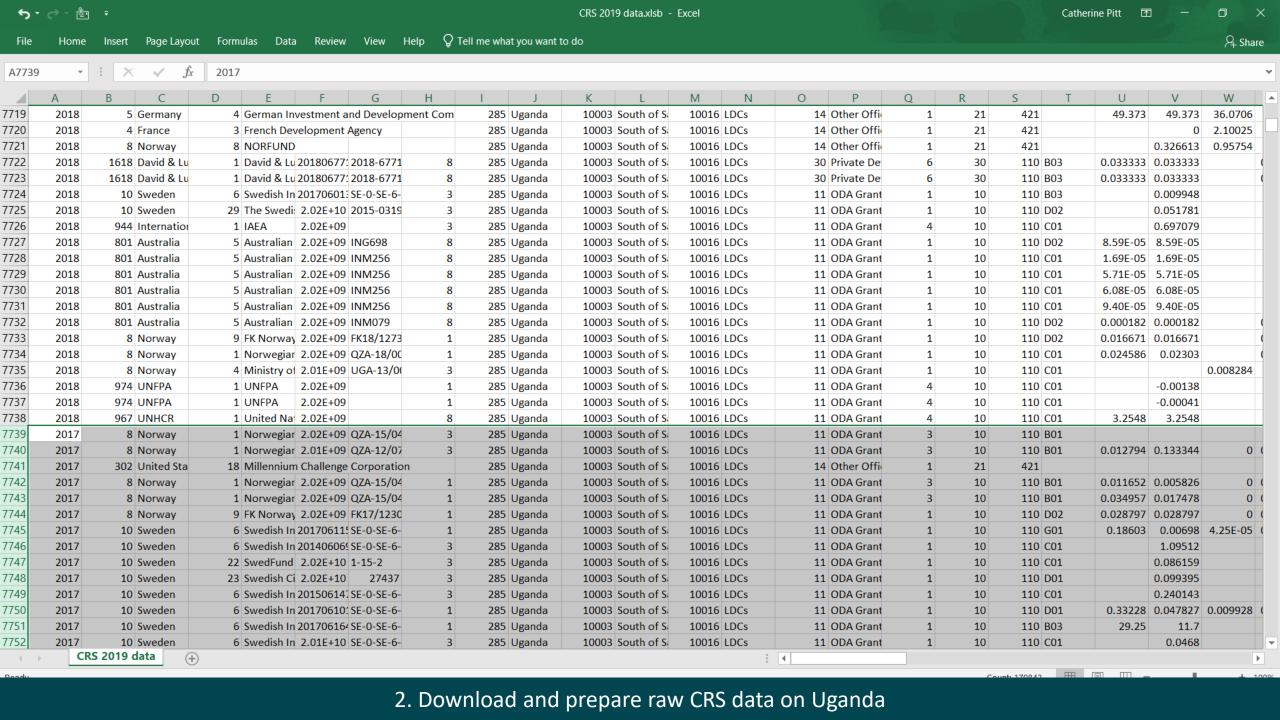
Catherine Pitt

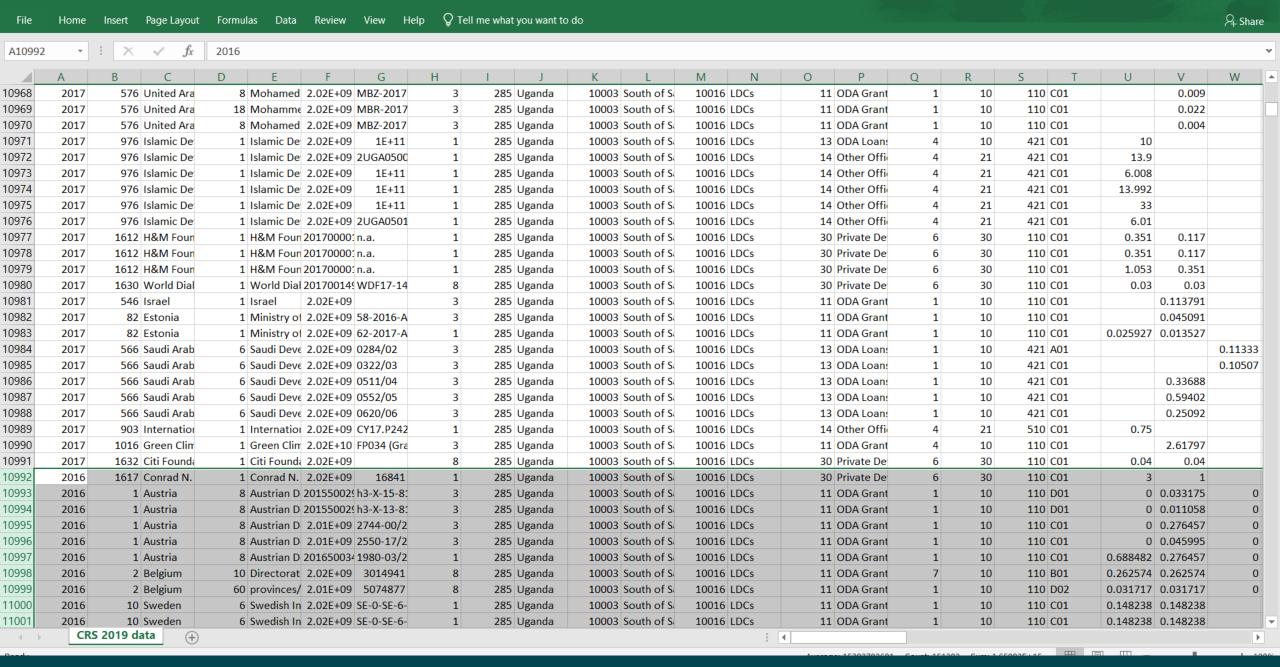
<u>@</u>-





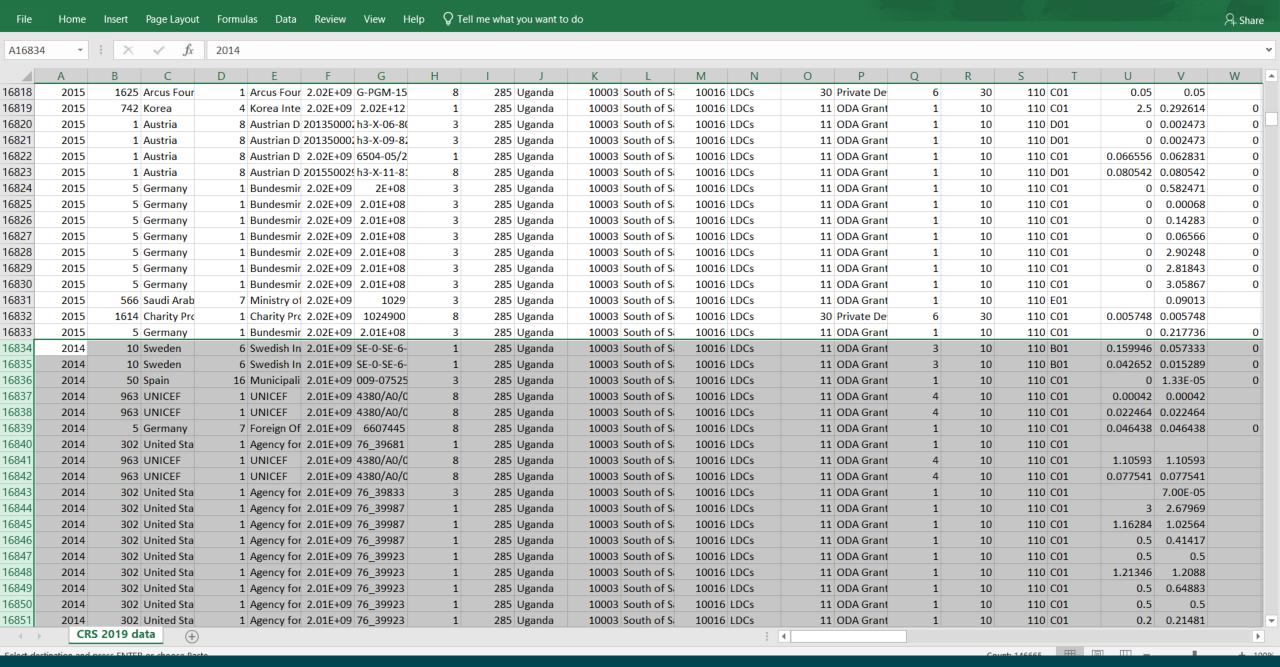




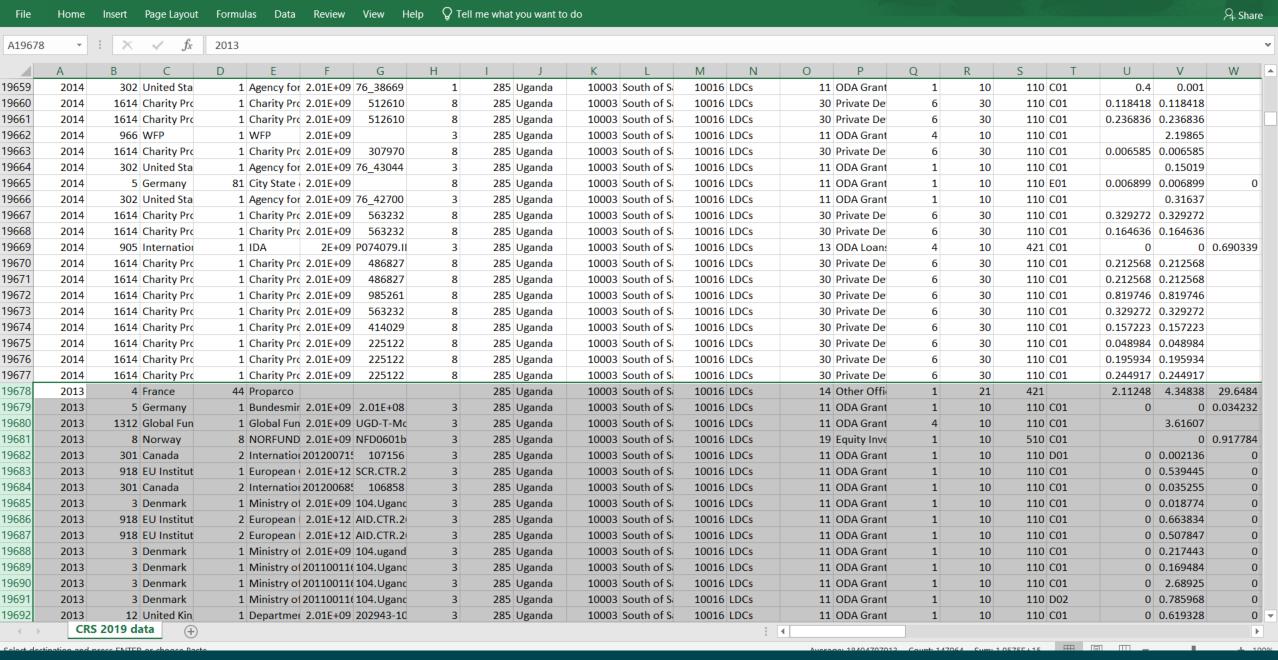


Catherine Pitt

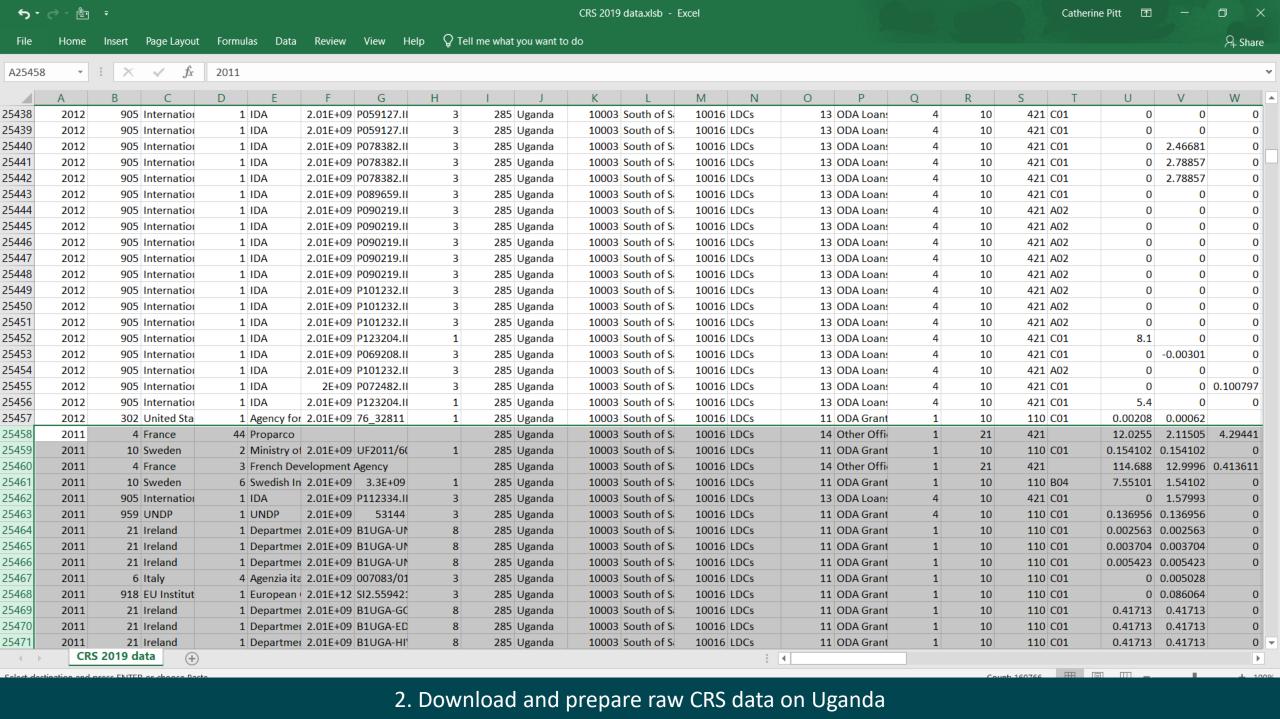
回

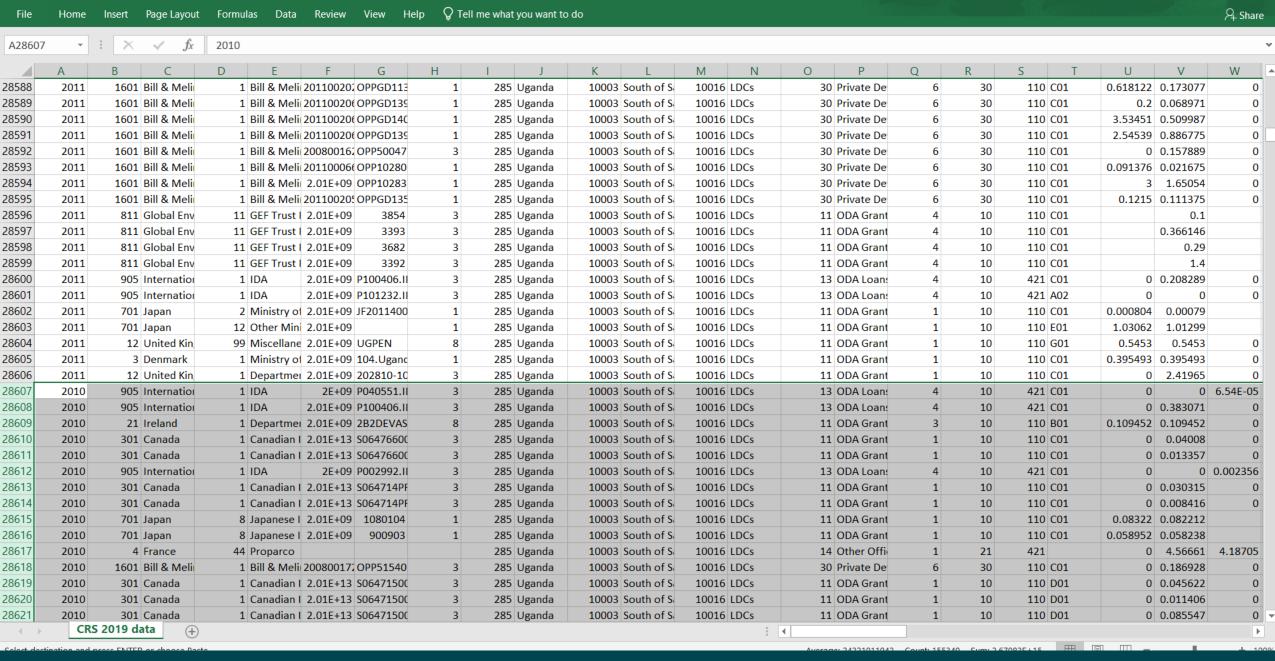


回

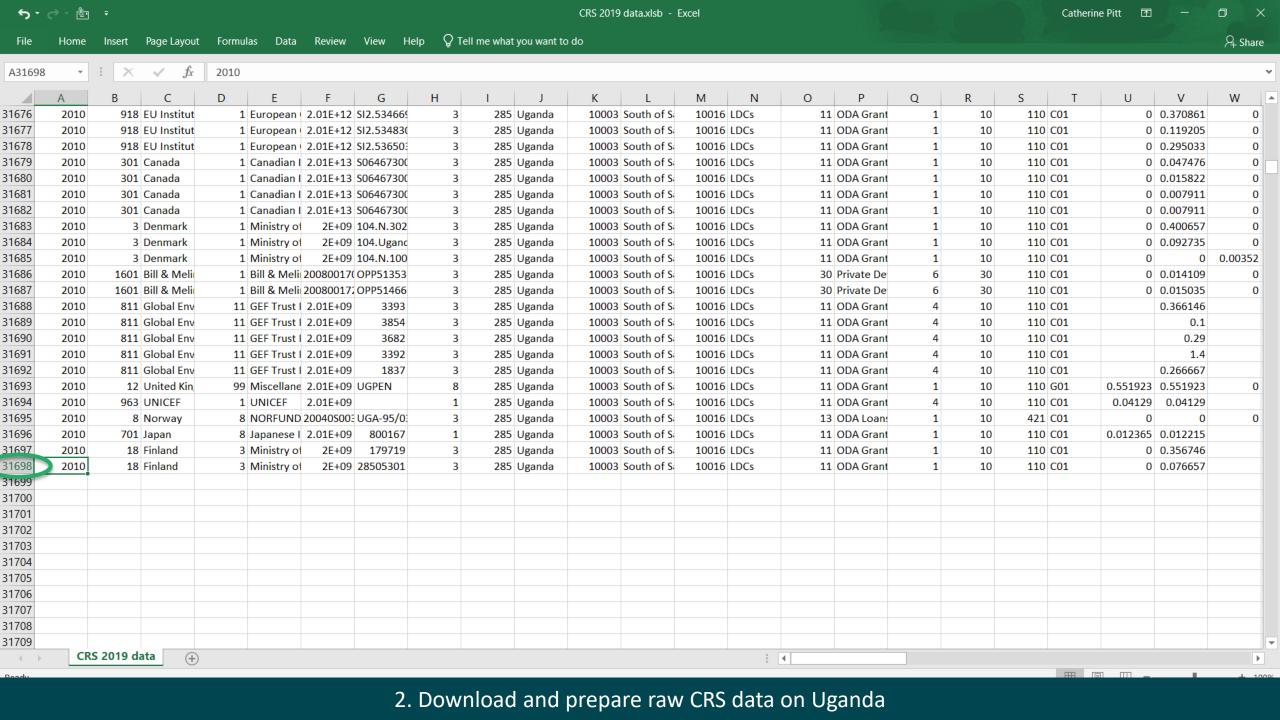


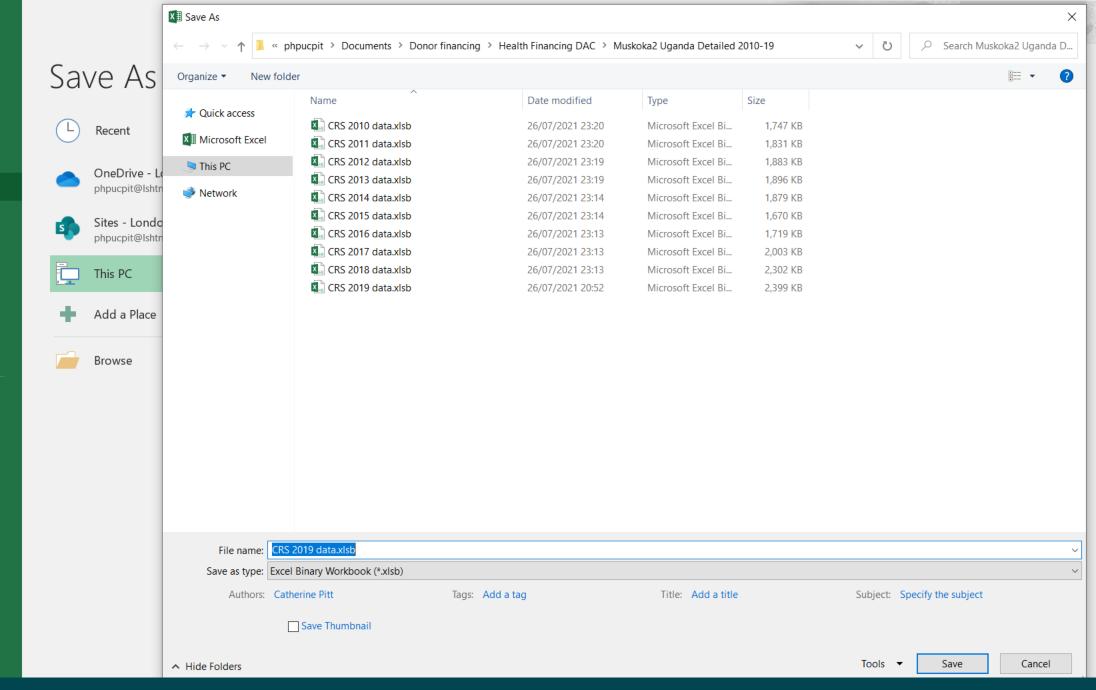
回





回





Info

New

Open

Save

Print

Share

Export

Publish

Close

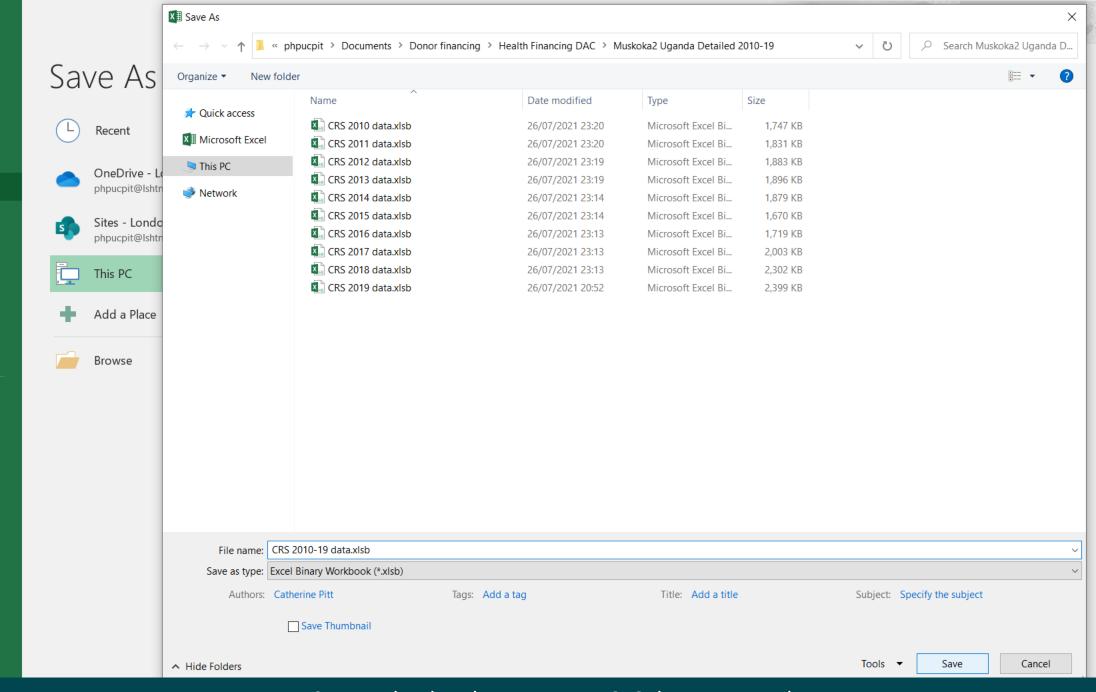
Account

Feedback

Options

Save As

2. Download and prepare raw CRS data on Uganda



Info

New

Open

Save

Print

Share

Export

Publish

Close

Account

Feedback

Options

Save As

2. Download and prepare raw CRS data on Uganda



#### We now have:

 A single Excel workbook containing all 31,695 records in the CRS for Uganda for all sectors and all flow types for the years 2010-19

### Next:

 Rearrange columns so that they are in the correct order to paste into the Muskoka2 Excel workbook