Complete Fronted Design

Team 74

Our web application was developed using python Dash and dash-bootstrap-components to build a consistently styled and responsive layout.

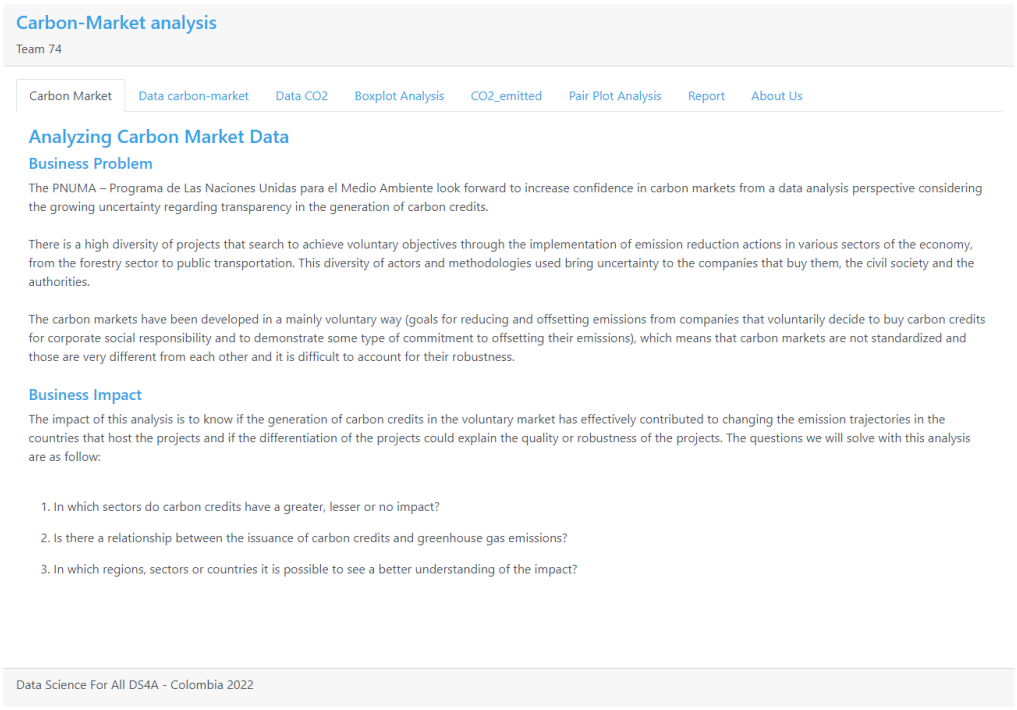
The application use tabs to separate different interfaces, currently it has:

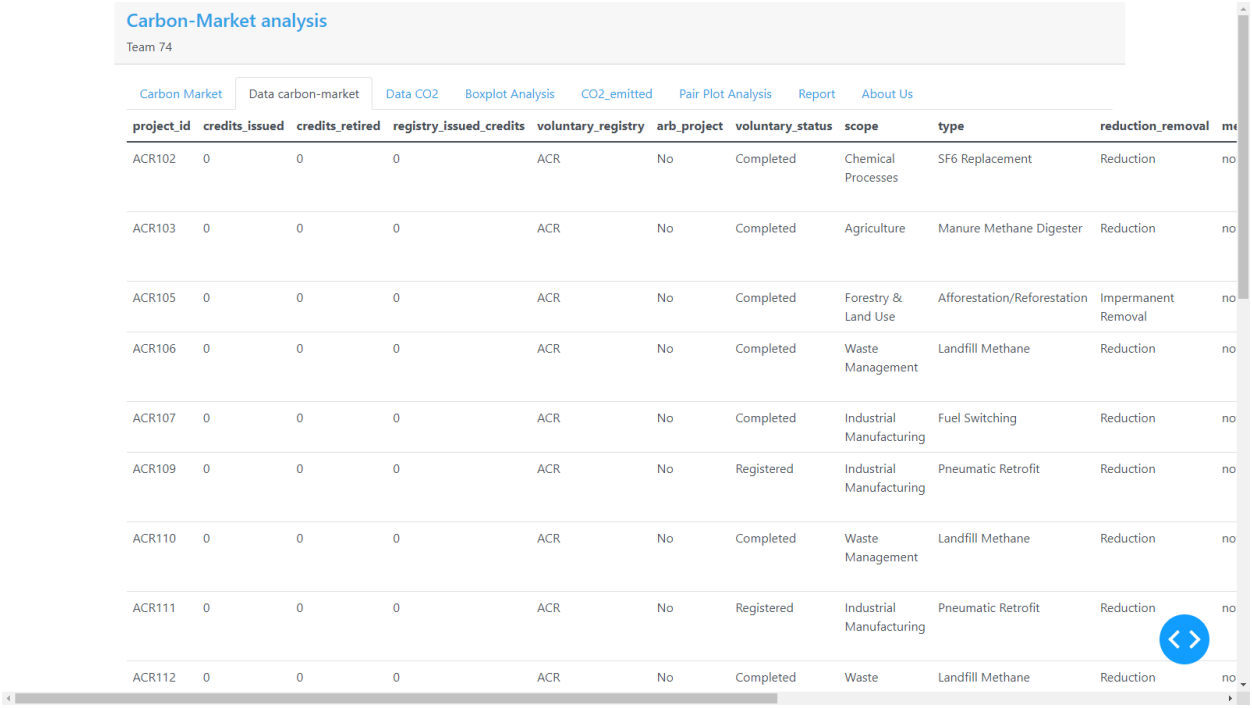
- Carbon Market
  Business description of the problem
- Data carbon-market
  Table with carbon-market data
- Data CO2
  Table with CO2 Emissions data
- Boxplot Analysis
  Interactive box plot that allows the user to pick what columns want to use
- CO2_emitted
  Interactive line plot that allows the user to pick countries to visualize the co2 emitted by year
- Pair Plot Analysis
  Shows a comparison for the carbon-market data with co2 emissions.
- Report
  Show the methods and analysis performed with the conclusions
- About Us
  Show the team-members description

The code for this project is available in Github

https://github.com/apinzonf/ds4a-carbon-market-project

Some screenshots





project_id	credits_issued	credits_retired	registry_issued_credits	voluntary_registry	arb_project	voluntary_status	scope	type	reduction_removal	me
ACR102	0	0	0	ACR	No	Completed	Chemical Processes	SF6 Replacement	Reduction	no
ACR103	0	0	0	ACR	No	Completed	Agriculture	Manure Methane Digester	Reduction	no
ACR105	0	0	0	ACR	No	Completed	Forestry & Land Use	Afforestation/Reforestation	Impermanent Removal	no
ACR106	0	0	0	ACR	No	Completed	Waste Management	Landfill Methane	Reduction	no
ACR107	0	0	0	ACR	No	Completed	Industrial Manufacturing	Fuel Switching	Reduction	no
ACR109	0	0	0	ACR	No	Registered	Industrial Manufacturing	Pneumatic Retrofit	Reduction	no
ACR110	0	0	0	ACR	No	Completed	Waste Management	Landfill Methane	Reduction	no
ACR111	0	0	0	ACR	No	Registered	Industrial Manufacturing	Pneumatic Retrofit	Reduction	no
ACR112	0	0	0	ACR	No	Completed	Waste	Landfill Methane	Reduction	no

Carbon-Market analysis

Team 74

Carbon Market | Data carbon-market | Data CO2 | Boxplot Analysis | CO2_emitted | Pair Plot Analysis | Report | About Us

country	year	credits_issued	credits_retired	registry_issued_credits	credits_remaining	CO2_emitted	percentage_mitigation
Argentina	1996	0	0	0	0	126560000	0
Argentina	1997	0	0	0	0	127320000	0
Argentina	1998	0	0	0	0	133170000	0
Argentina	1999	0	0	0	0	134190000	0
Argentina	2000	0	0	0	0	131910000	0
Argentina	2001	0	0	0	0	124870000	0
Argentina	2002	0	0	0	0	117470000	0
Argentina	2003	0	0	0	0	128360000	0
Argentina	2004	0	0	0	0	141850000	0
Argentina	2005	0	0	0	0	146320000	0
Argentina	2006	0	0	0	0	155370000	0
Argentina	2007	58509	0	0	0	163630000	0.0357568905457434
Argentina	2008	65655	0	1	1	168150000	0.0390454950936663
Argentina	2009	165360	22814	102206	102206	157440000	0.105030487804878
Argentina	2010	222274	10000	179134	179134	168140000	0.132195789223 2663
Argentina	2011	4075	63154	2875	2875	177260000	0.0022988829967279
Argentina	2012	189017	4363	52988	52988	178530000	0.1058740827872066
Argentina	2013	0	1200	0	0	184000000	0

Carbon-Market analysis

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Select category for x axis

region

Select numerical data for y axis

credits_issued

credits_issued
credits_remaining
credits_retired
registry_issued_credits

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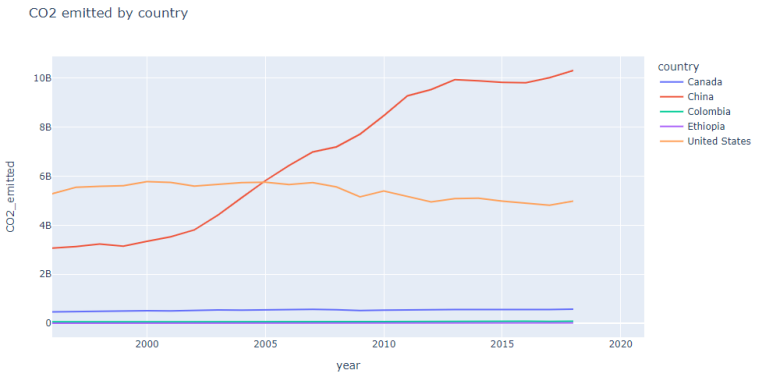
Select countries

× Colombia × China × United States × Ethiopia × Canada

Argentina
Aruba
Australia
Bangladesh
Belize
Benin



Carbon-Market analysis

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Carbon-Market analysis

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Report for Carbon Market Data

Conclusions

The carbon markets have been developed in a mainly voluntary way (goals for reducing and offsetting emissions from companies that voluntarily decide to buy carbon credits for corporate social responsibility and to demonstrate some type of commitment to offsetting their emissions), which means that carbon markets are not standardized and those are very different from each other and it is difficult to account for their robustness.
Sectorized analysis of the carbon credit market
Comparison with the carbon emission according to the sample we take

ToDo