



# World Bank Group Investment Contract Analysis



# About the World Bank Group

The World Bank Group is a global partnership of financial institutions that aim to promote long-term economic development and reduce poverty in developing countries

“The World Bank Group supports countries through policy advice, research and analysis, and technical assistance”

The World Bank Group finances contract awards under Investment Project Financing (IPF) operations. IPF not only supplies borrowing countries with needed financing but also serves as a vehicle for sustained, global knowledge transfer and technical assistance.

# About our Data

The data includes all contract awards financed by The World Bank under IPF operations. The primary focus of our investigation considers the effectiveness of the contracts financed under IPF operations. Many of these contracts are focused in social and economic infrastructure.

	As of Date	Fiscal Year	Region	Borrower Country / Economy	Borrower Country / Economy Code	Project ID	Project Name	Project Global Practice	Procurement Category	Procurement Method	WB Contract Number	Contract Description	Borrower Contract Reference Number	Contract Signing Date	Supplier ID	Supplier	Supplier Country / Economy	Supplier Country / Economy Code	Supplier Contract Amount (USD)	Review type
0	09-Oct-2024	2020	SOUTH ASIA	Afghanistan	AF	P122235	AF Irrigation Restoration and Development Project	Agriculture, Fishing and Forestry	Civil Works	Request for Bids	1621166	Abpashak River Bank Protection Scheme in Gresh...	MEW-REF-QR501-LOT1	22-Jan-2020	413420.0	BRIGHT PEARL CONST.CO	Afghanistan	AF	1355819.28	Post
1	09-Oct-2024	2020	SOUTH ASIA	Afghanistan	AF	P125597	Kabul Municipal Development Program	Transportation;Water, Sanitation and Waste Man...	Civil Works	Request for Bids	1632271	Upgrading Infrastructure of Gozar 24, Dis. 12 ...	KMDP/W-94/U	21-Jan-2020	491163.0	HIKMATULLAH KHAN NASIR ROAD, BUILDING & CONSTR...	Afghanistan	AF	649856.99	Post
2	09-Oct-2024	2020	SOUTH ASIA	Afghanistan	AF	P122235	AF Irrigation Restoration and Development Project	Agriculture, Fishing and Forestry	Goods	Request for Bids	1625013	Supply and Installation of Snow Pack Analyzers...	MEW-REF-G246	21-Jan-2020	427383.0	ASCENT AFG GROUP OF CO CONSTRUCTION & ENGINEERING	Afghanistan	AF	137725.00	Post
3	09-Oct-2024	2020	SOUTH ASIA	Afghanistan	AF	P122235	AF Irrigation Restoration and Development Project	Agriculture, Fishing and Forestry	Goods	Request for Bids	1625013	Supply and Installation of Snow Pack Analyzers...	MEW-REF-G246	21-Jan-2020	450443.0	RK ENGINEERING CORPORATION	India	IN	137725.00	Post
4	09-Oct-2024	2020	SOUTH ASIA	Afghanistan	AF	P125597	Kabul Municipal Development Program	Transportation;Water, Sanitation and Waste Man...	Civil Works	Request for Bids	1617803	Upgrading Infrastructure of Tapa e Karte Naw T...	KMDP/W-100/T	21-Jan-2020	490859.0	AFGHAN BUILDERS CONSORTIUM	Afghanistan	AF	649219.82	Post

# Why does the data matter?

The primary goal of our data analysis is to conduct an investigation into the effectiveness of investment contracts financed by the World Bank Group in their attempts to bring financial stability and reduce poverty in developing countries. By comparing the primary dataset with several other actionable metrics, we hope to better understand the extent of the effects of these investment contracts in bettering the economic futures of developing countries.

# Our Questions

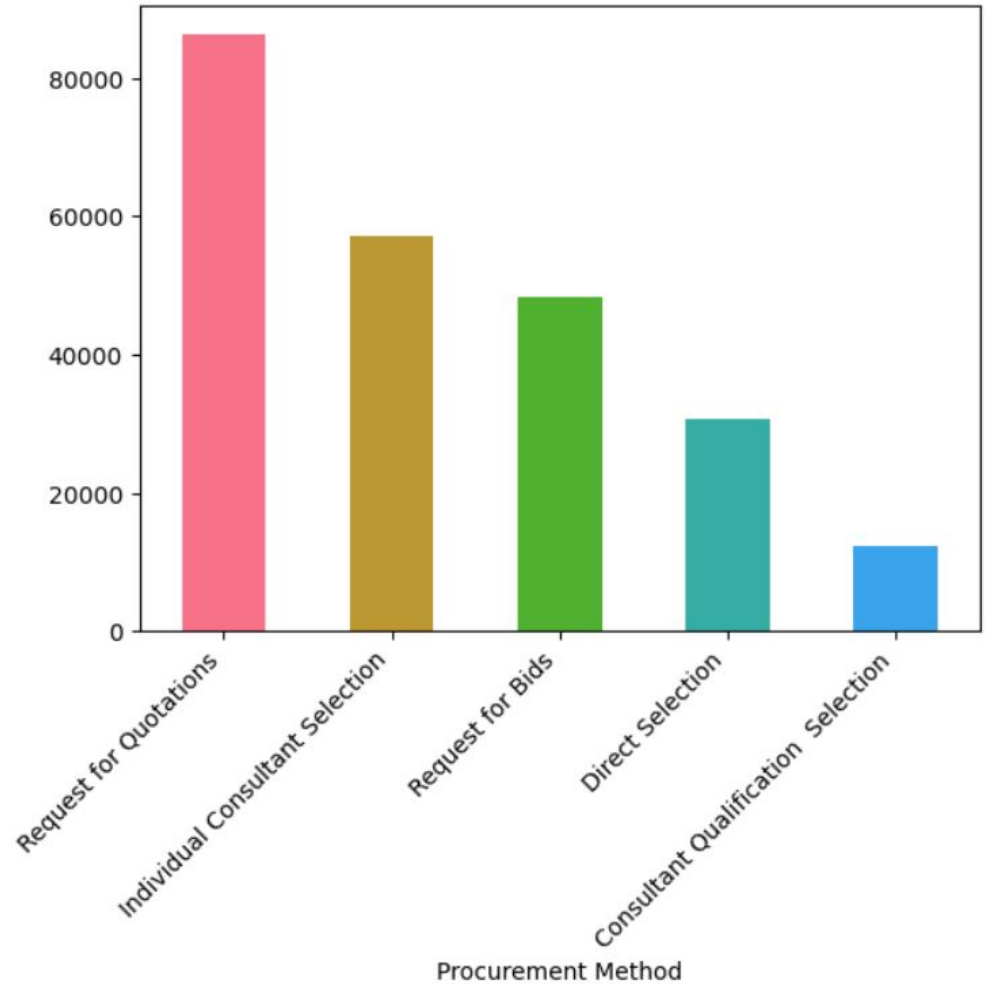
1. Examine high level trends across global practice and procurement
2. Find leading contract supplier countries across each region
3. Examine the top suppliers for the top supplying country
4. Examine top contract amount awarded
5. Identify investment trends across industry and procurement category
6. Explore future forecasts of investment contracts



# Exploratory Analysis



## Contract variation by Procurement Method

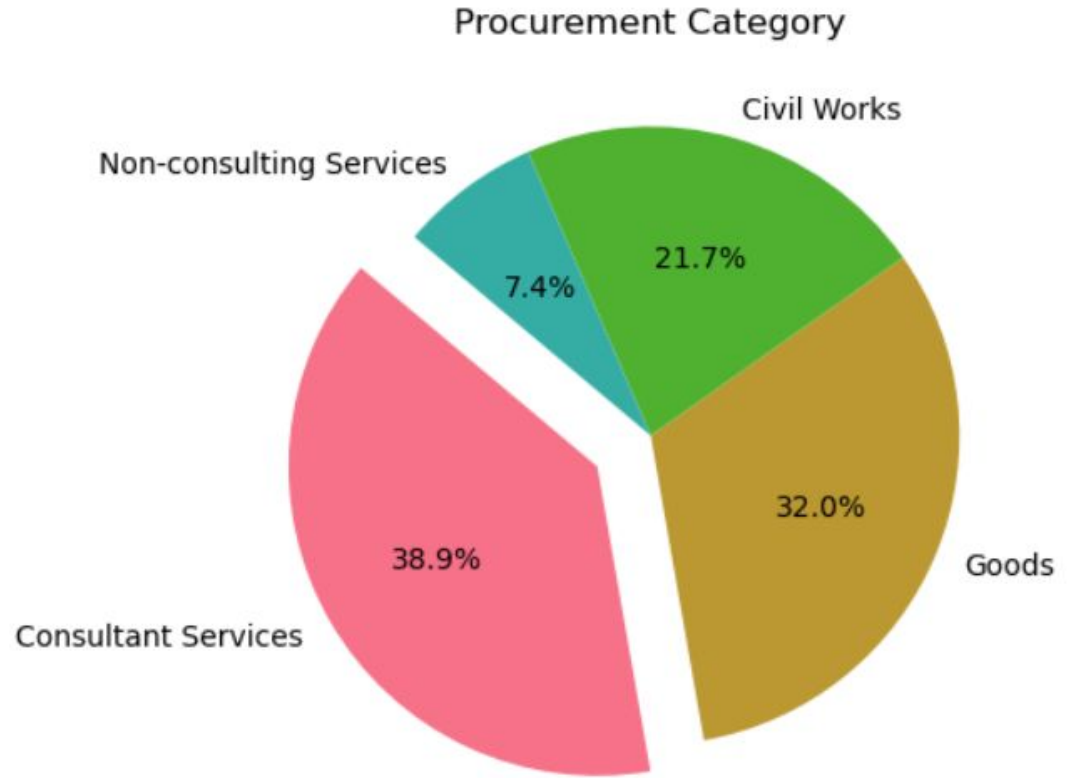


# Variation in Project Global Practice

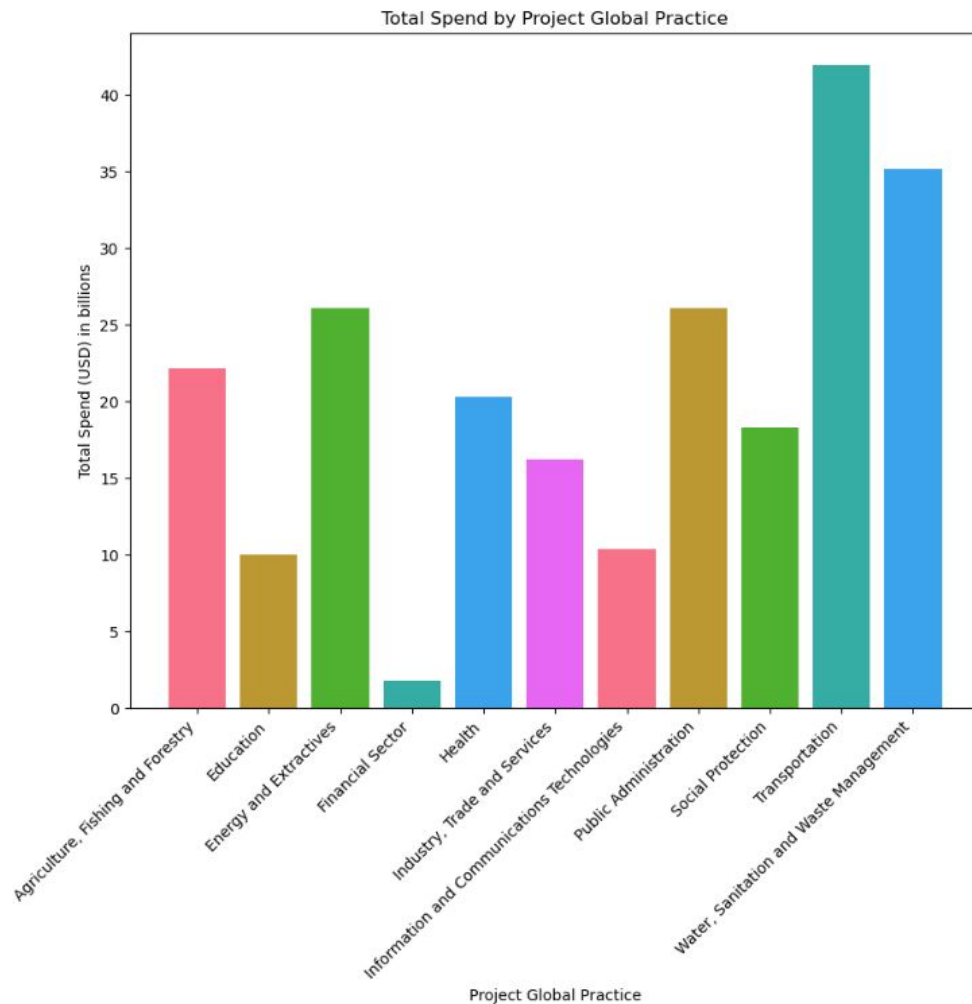




## Project variation by Procurement Category



# Total Spend by Project Global Practice

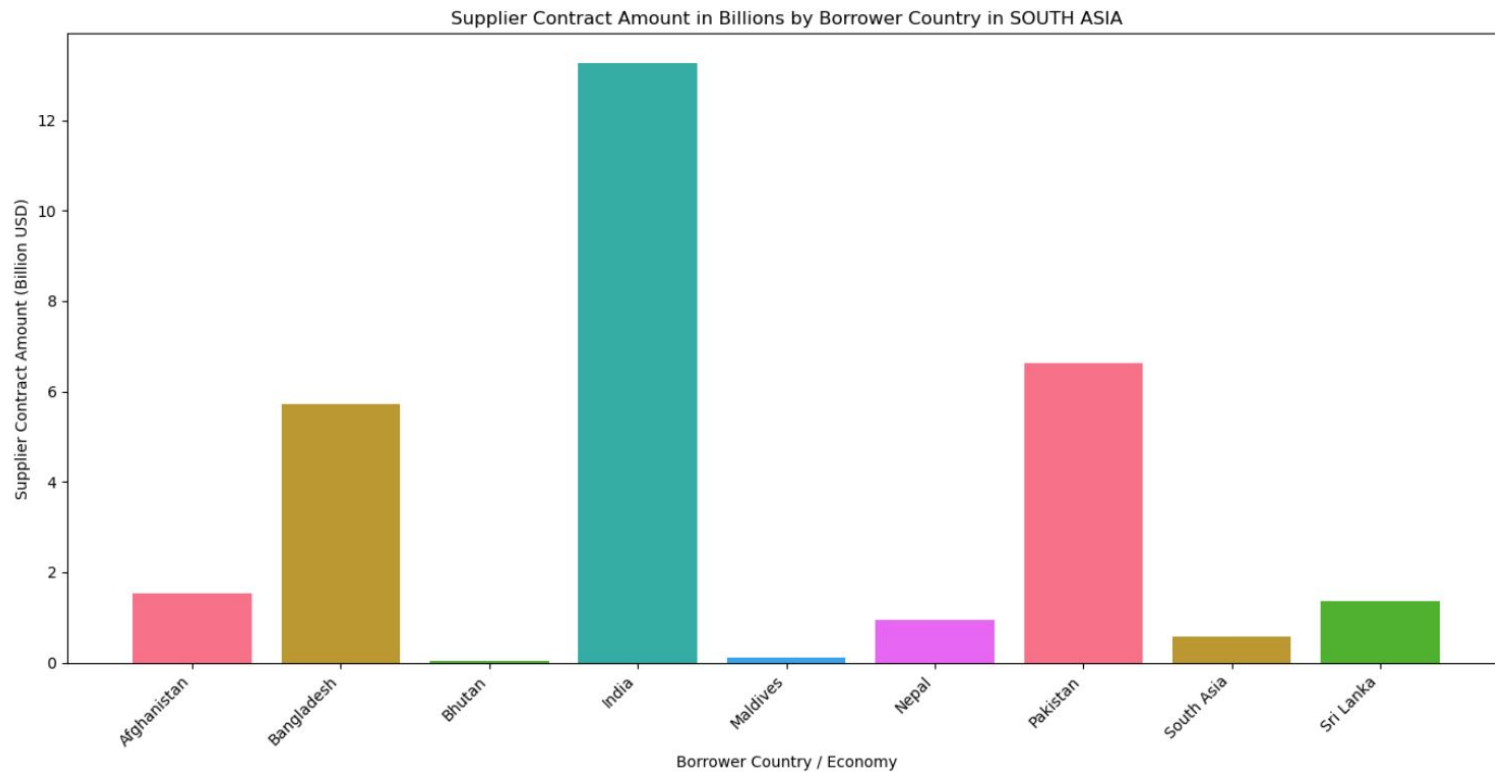




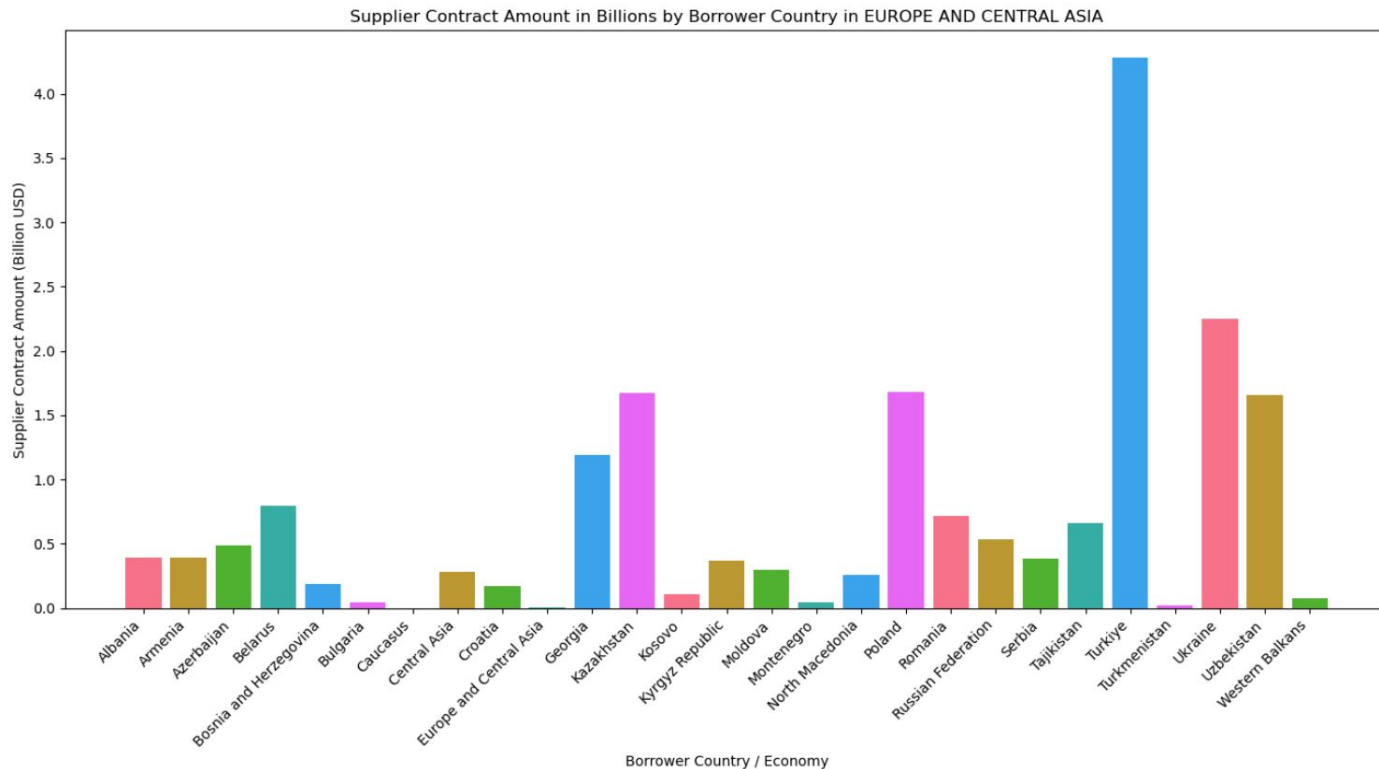
Find leading contract supplier countries  
across each region



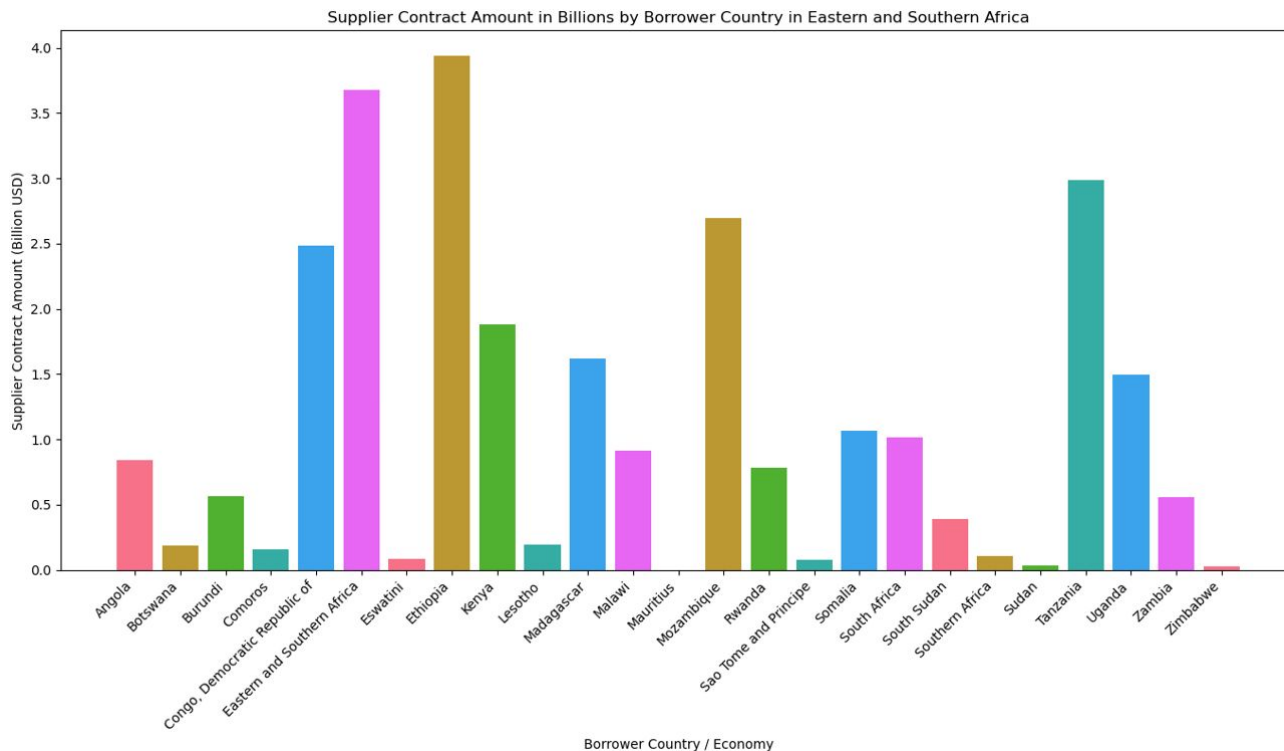
# South Asia



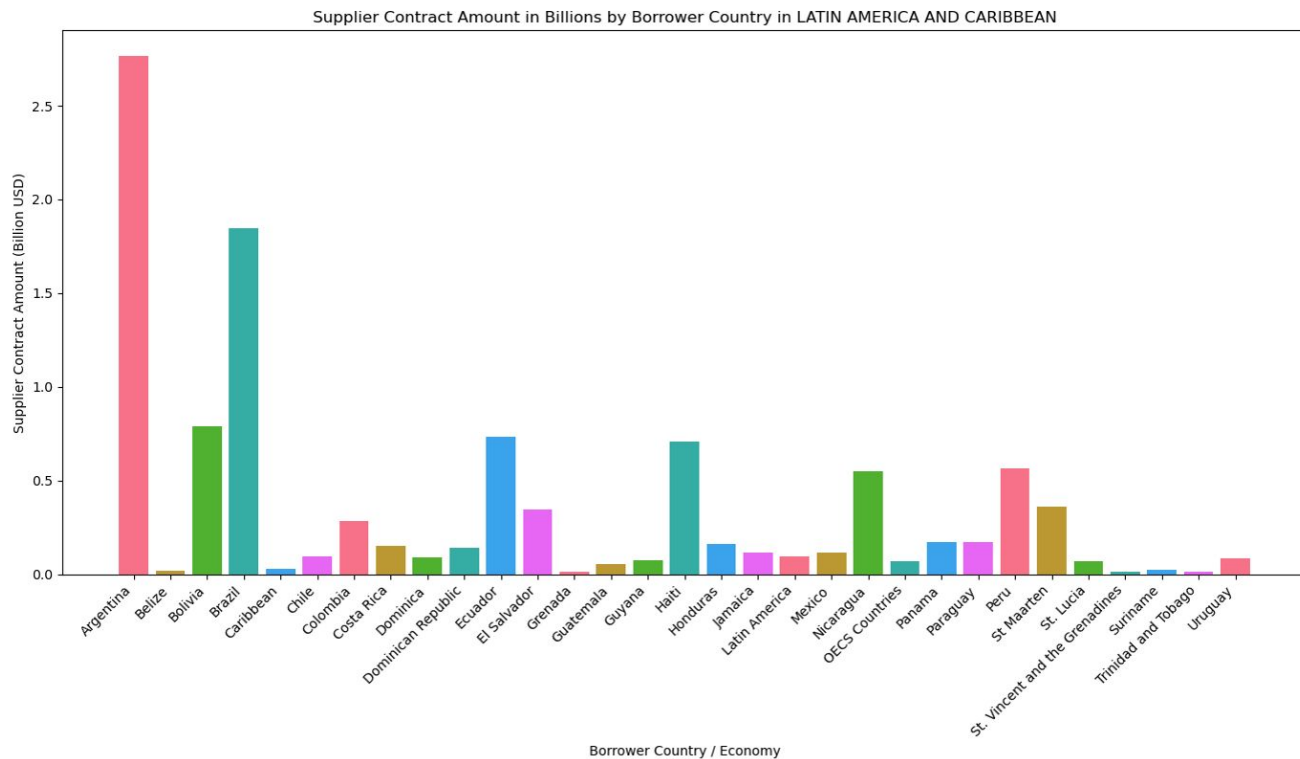
# Europe and Central Asia



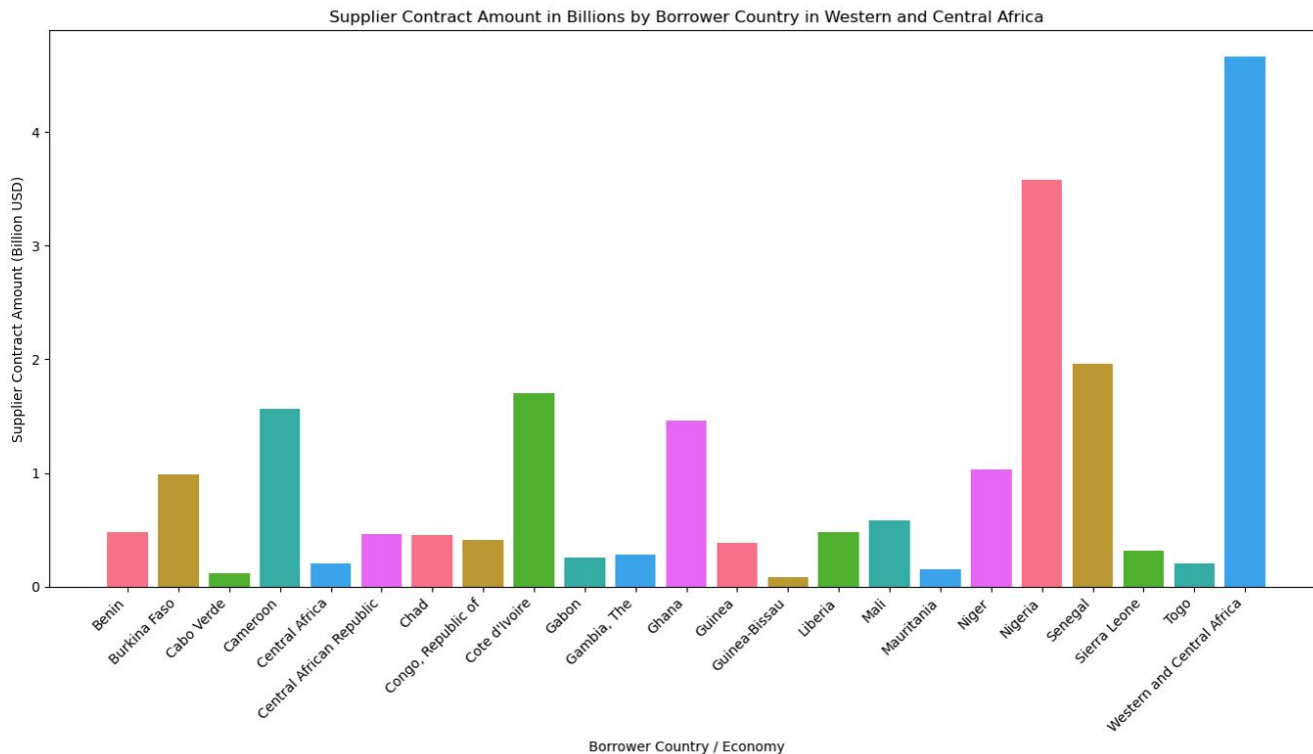
# Eastern and Southern Africa



# Latin America and Caribbean

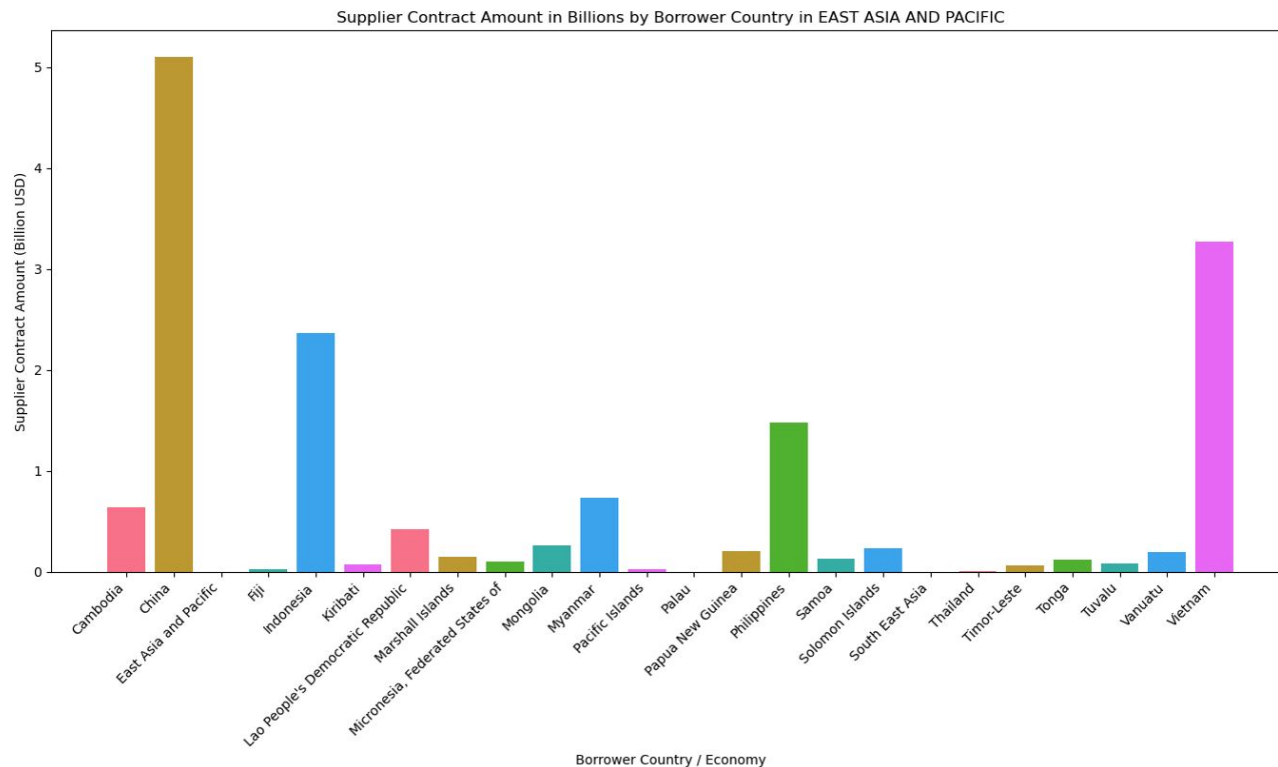


# Western and Central Africa

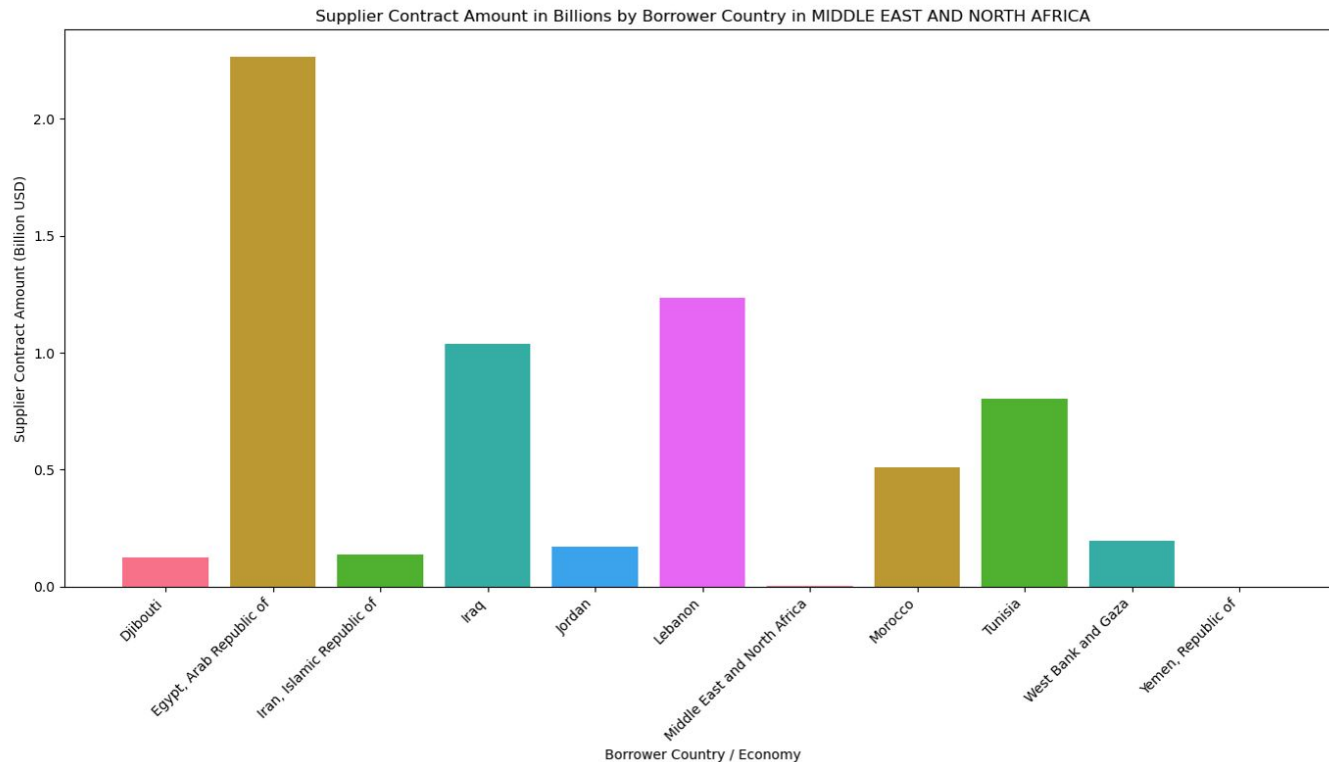




# East Asia and Pacific



# Middle East and North Africa

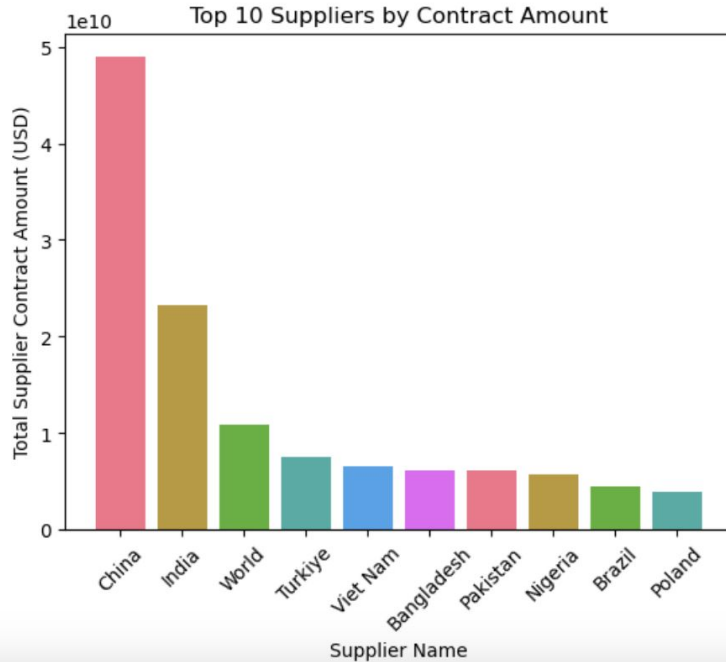




Examine the top suppliers for the top  
countries



# Top Suppliers by Contract



Total amount China spent:  
48,960,274,452.23

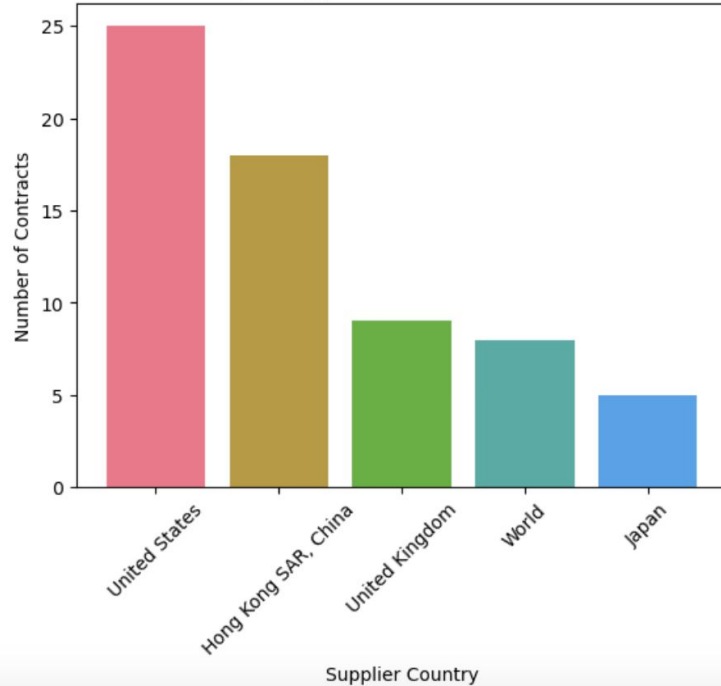
Top contract amount as Supplier:  
812,960,107.83 for Pakistan

Total amount India spent:  
23,209,878,635.72

Top contract amount as Supplier:  
442,575,842.97 for India

# Top Supplier Countries for China

Top 5 Supplier Countries for China

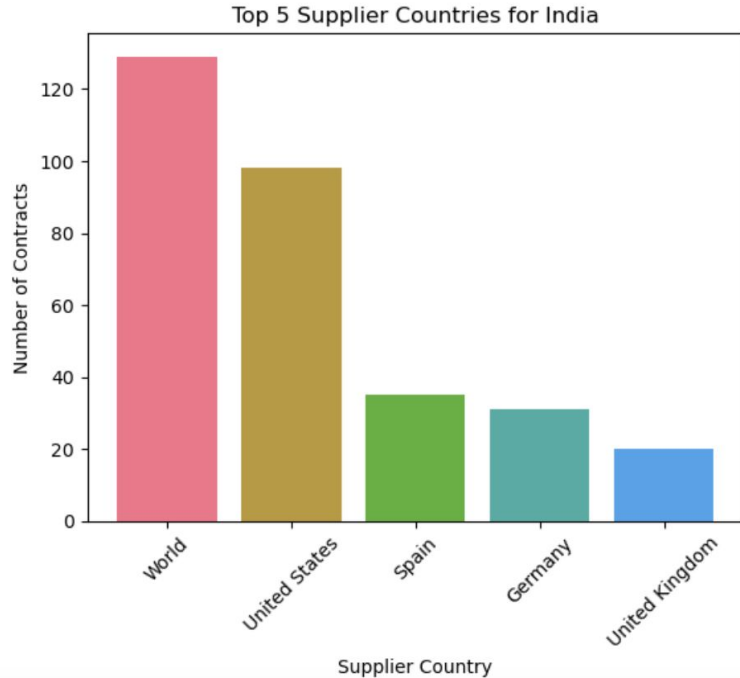


Amount of contracts US did for China:  
25

Amount of contracts China did for China:  
5,717

\*China was its own top supplier, so it was excluded from the graph

# Top Supplier Countries for India



Amount of contracts World did for India:

129

Amount of contracts India did for India:

66,727

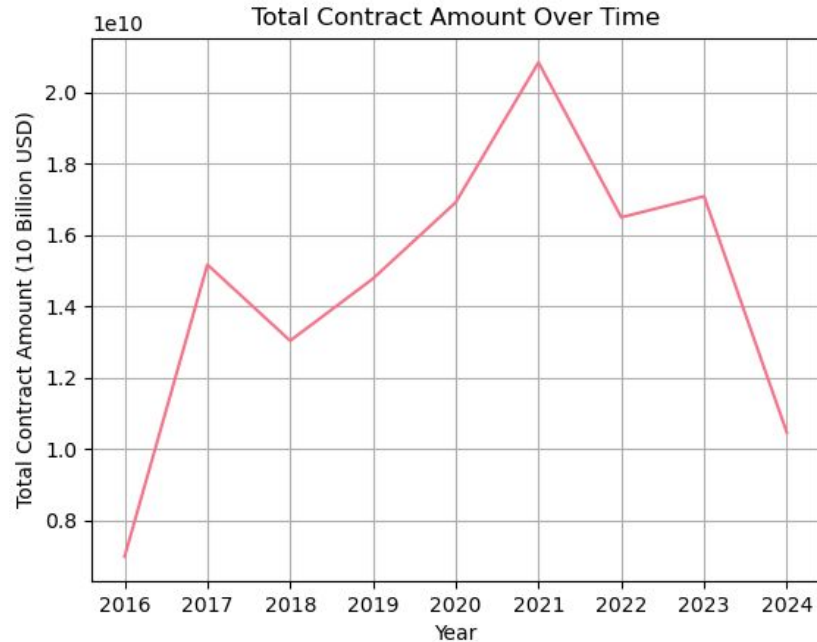
\*India was its own top supplier, so it was excluded from the graph



Examine the top contract amounts awarded



# Total Contract Amount Over Time

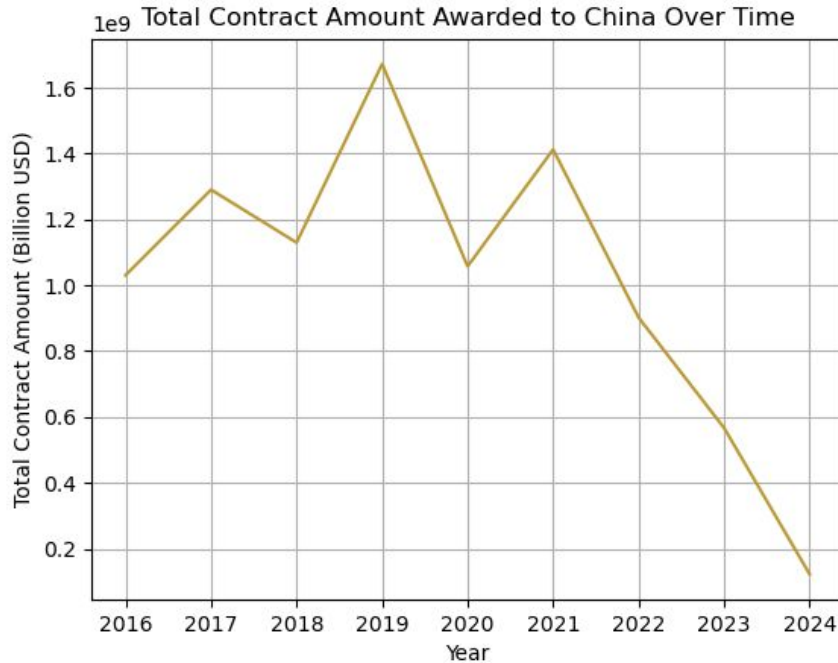


Contract Amount in 2021:  
20,831,674,297.68

Top contract amount:  
812,960,107.83  
Supplier: China  
Borrower: Pakistan



# Total Top Contract Awarded to China



Contract Amount in 2019:

1,672,089,848.78

Top Contract Amount as Borrower

96,115,641.03 from China

# Total Top Contract Awarded to India



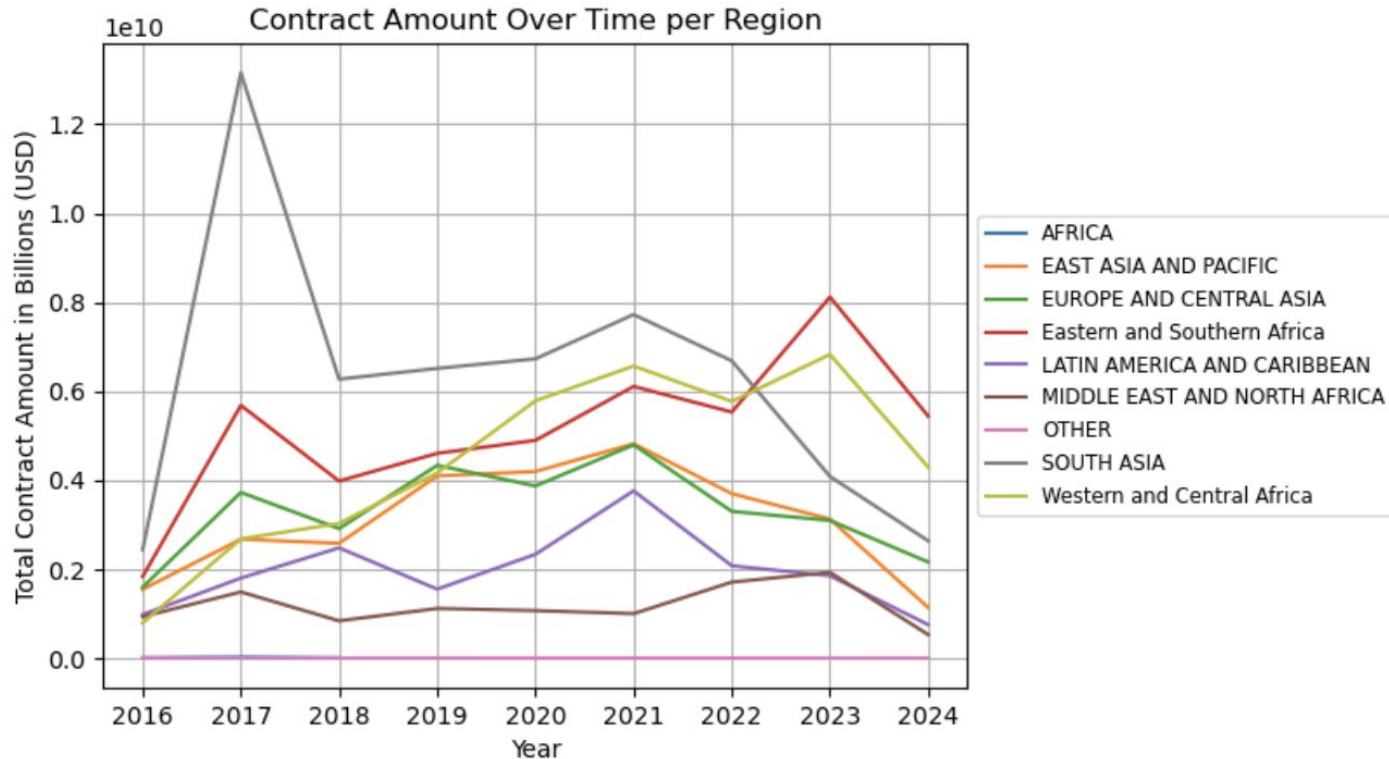
Contract Amount in 2020:

4,139,431,835.08

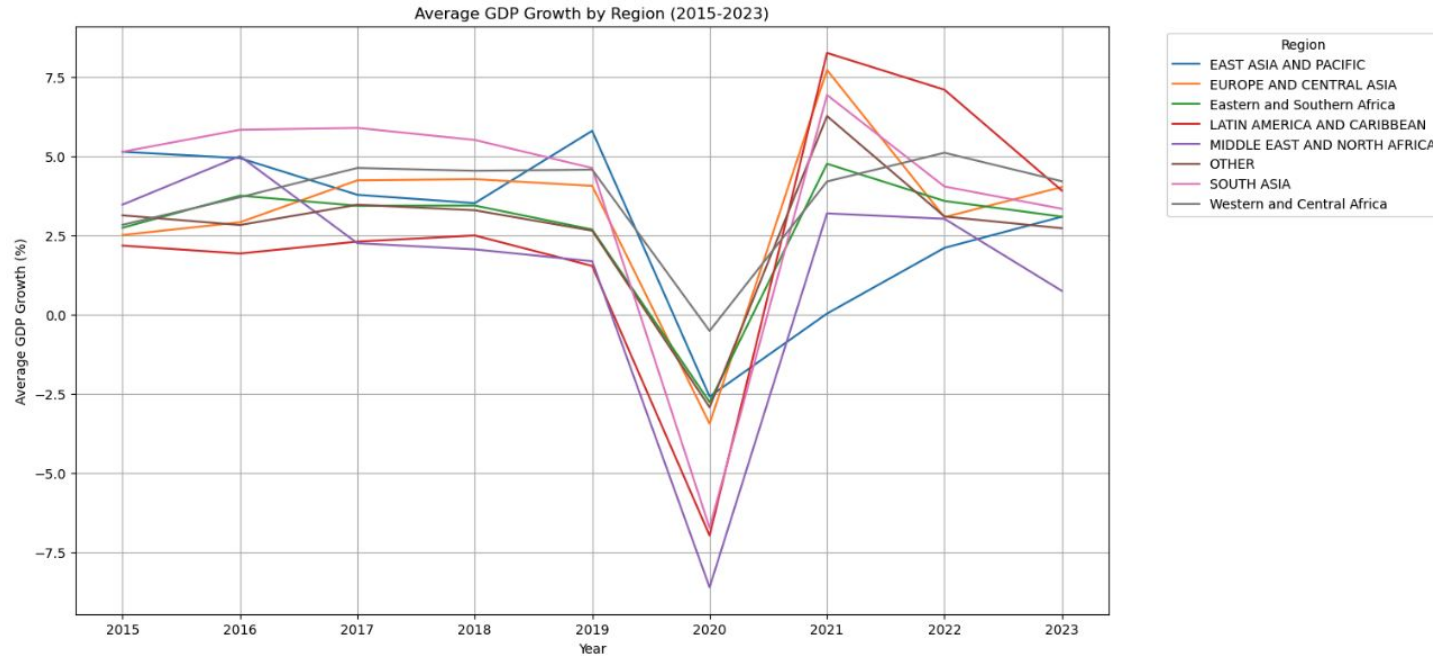
Top Contract Amount as Borrower:

442,575,842.97 from India

# Total Contract Amount Per Region

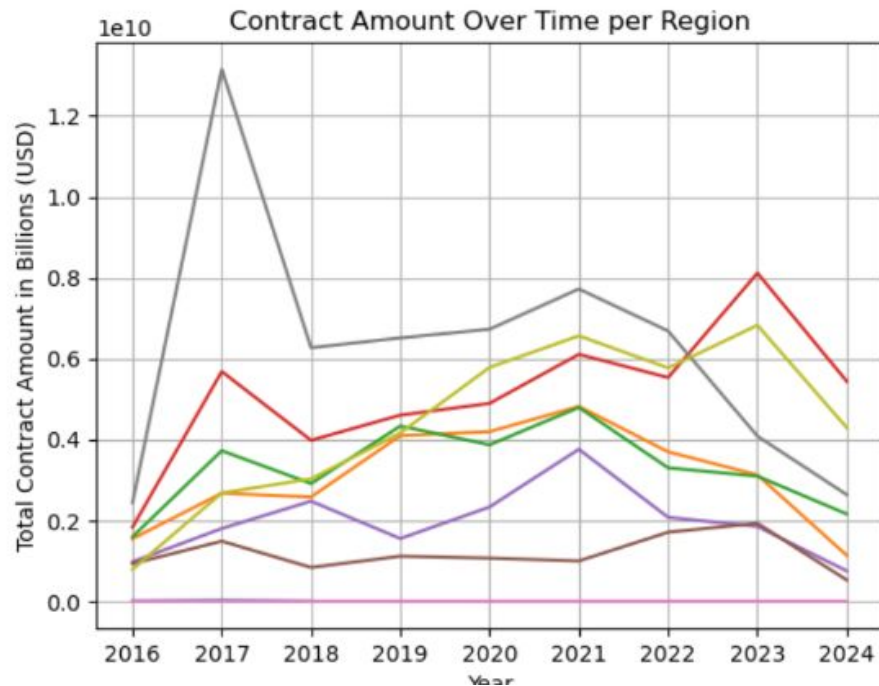


# GDP Growth by Region



# Can we see the effects of the investment contracts?

Comparing the contract amounts of each region with annual percent change in GDP





# Top Country Analysis



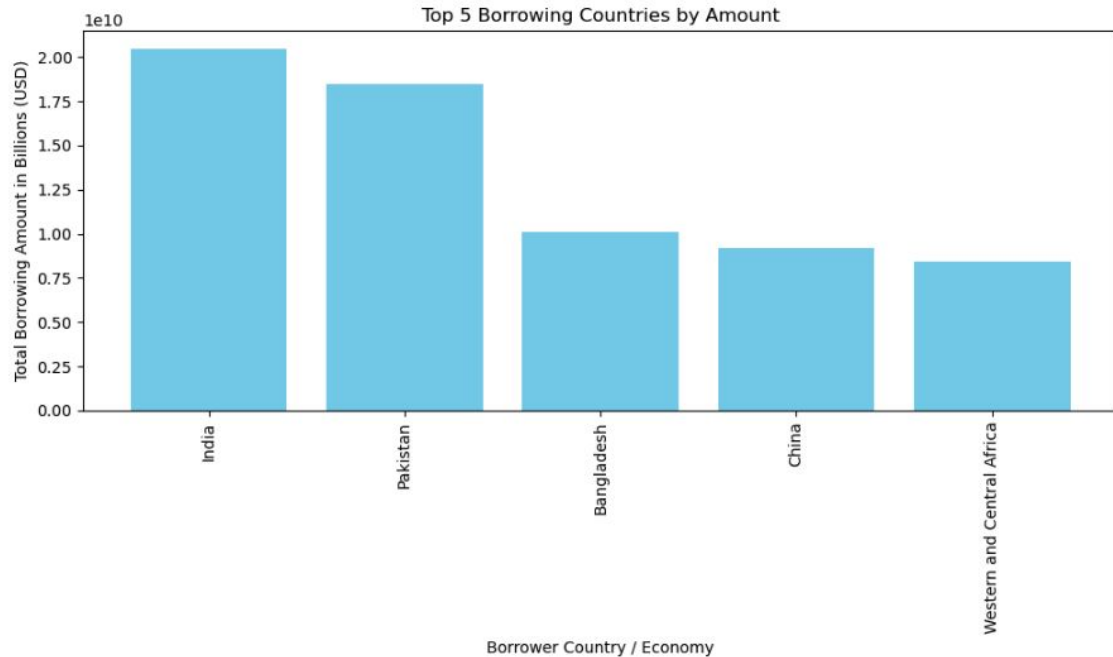
# Identify each country investment year over year

A high-level analysis of money invested by each country year over year using pivot table.

Borrower Country / Economy	Afghanistan	Africa	Albania	Angola	Argentina	Armenia	Azerbaijan	Bangladesh	Belarus	Belize	...
Fiscal Year											
2017	5.344141e+08	19568696.32	2.103315e+08	3.720866e+07	2.427006e+08	9.063492e+07	2.184883e+08	1.507886e+09	4.062079e+08	10216284.17	..
2018	3.028574e+08	4249712.06	5.885424e+07	1.552506e+08	8.263513e+08	5.076940e+07	9.029696e+07	1.133270e+09	6.222263e+06	3288582.49	..
2019	8.758000e+08	100678.13	6.667323e+07	1.049747e+08	3.779283e+08	5.858146e+07	2.254262e+07	1.149102e+09	3.245993e+07	6180336.88	..
2020	3.453970e+08	NaN	1.848846e+08	2.366087e+08	2.373736e+08	6.136945e+07	6.585225e+06	1.623993e+09	4.790025e+07	3268882.79	..
2021	3.181813e+08	NaN	1.041673e+08	1.628691e+08	9.876294e+07	9.090263e+07	6.374801e+07	1.119814e+09	2.354514e+08	3314006.45	..
2022	3.086722e+06	NaN	6.463400e+07	3.670816e+08	1.472325e+09	1.164432e+08	3.158203e+08	1.756489e+09	6.519522e+07	2120892.25	..
2023	NaN	NaN	1.137420e+08	1.424339e+08	5.937037e+08	1.000431e+08	1.338070e+08	7.547567e+08	1.960000e+04	1802120.78	..
2024	5.592236e+05	NaN	2.091663e+07	1.009489e+08	9.843783e+07	8.980331e+07	1.058099e+08	1.017068e+09	NaN	5882549.25	..
2025	6.722842e+04	NaN	1.268951e+06	1.279878e+07	1.225665e+07	2.367349e+06	1.936315e+05	1.038341e+07	NaN	536059.78	..

9 rows x 153 columns

# Top 5 countries by investment



Top 5 countries by total amount invested from 2017-2023.





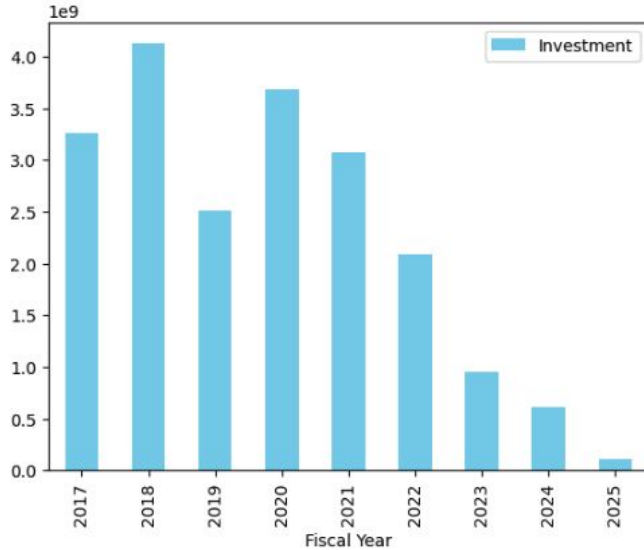
# India Analysis

Explore future forecasts of investment contracts

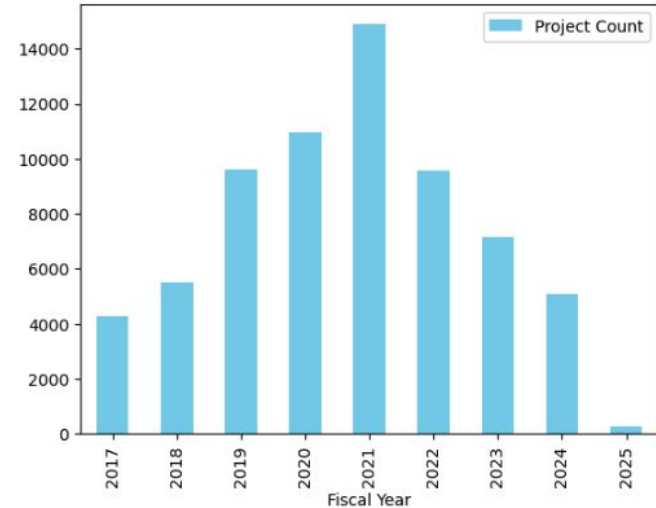


# Trend of investment & no. of projects

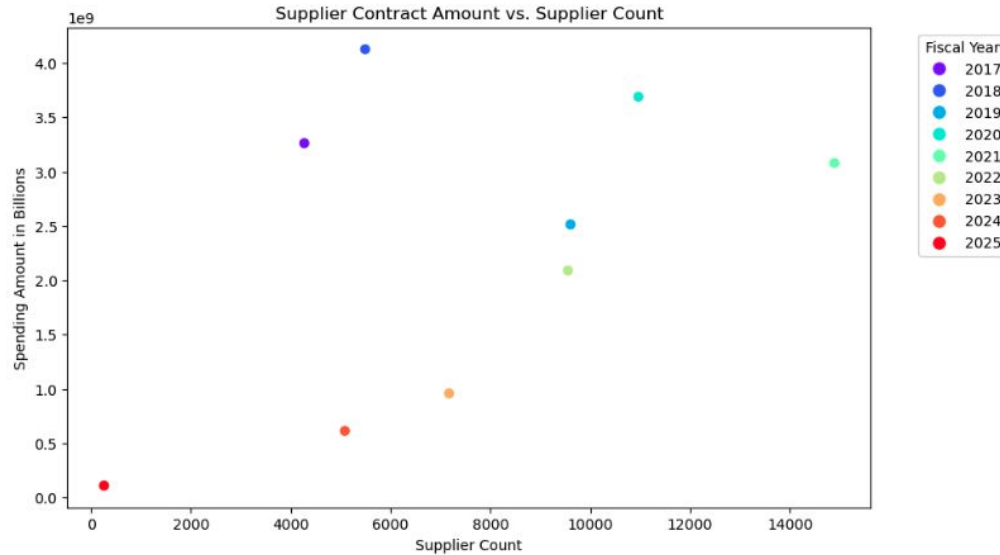
Bar chart showing amount of money country invested year over year



Bar chart showing project count country had working for them year over year

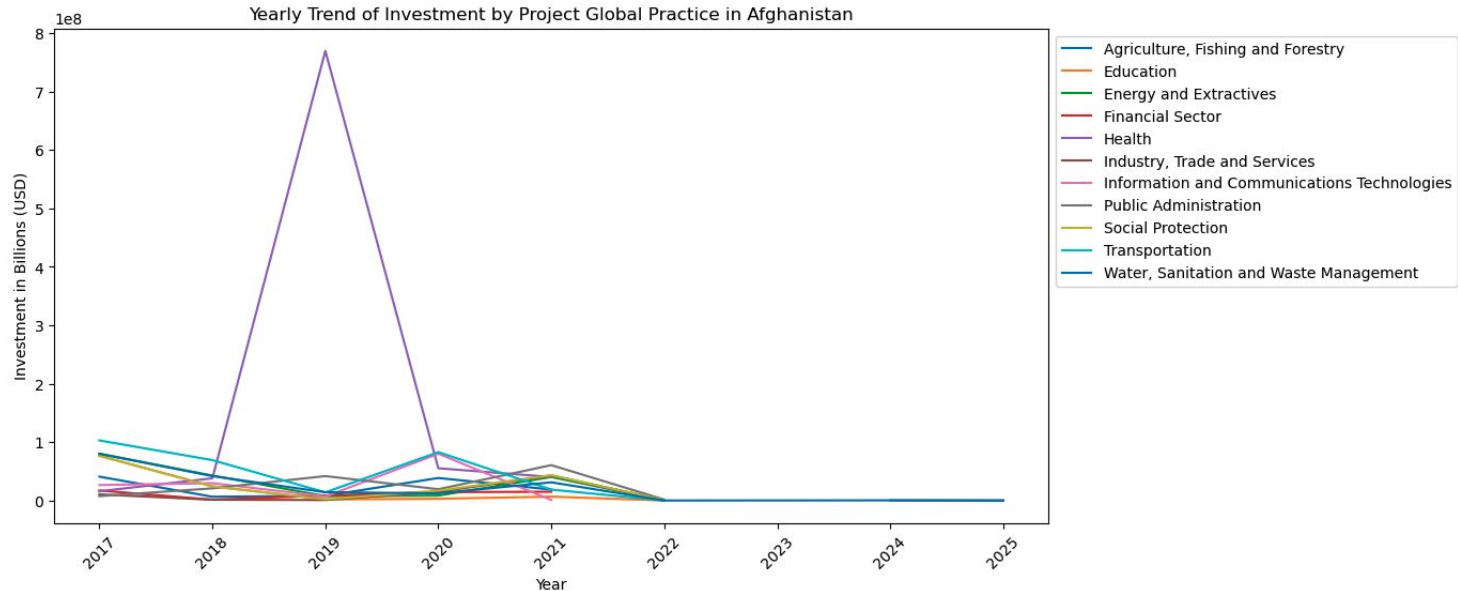


# Relationship between investment Vs project count



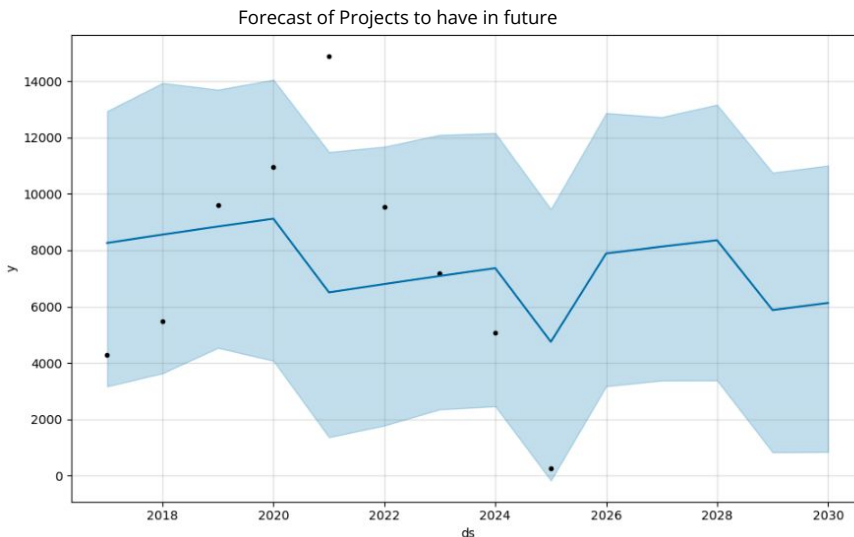
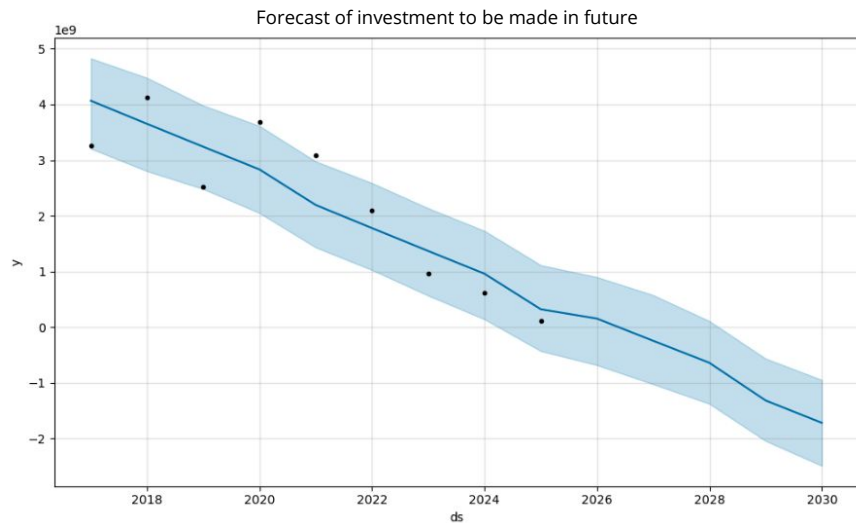
Scatter plot to identify if there is a relationship between amount of money India invested vs no. of projects it had every year.

# Yearly Trend of Investment by Practice



Year over year trend analysis by area of practice to identify the area in which most investment is made.

# Forecast of Investment/Projects for next 5 yrs





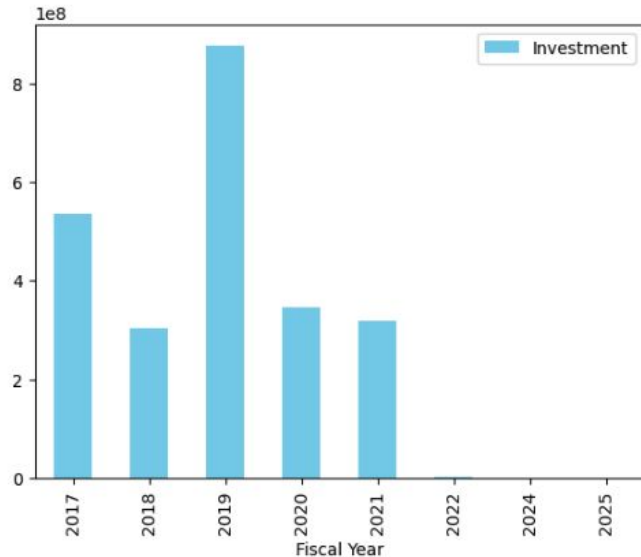
# Afghanistan Analysis

Explore future forecasts of investment contracts

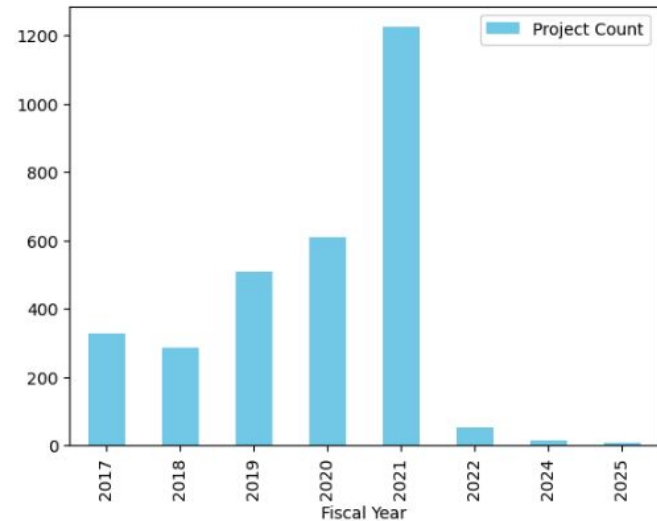


# Trend of investment & no. of projects

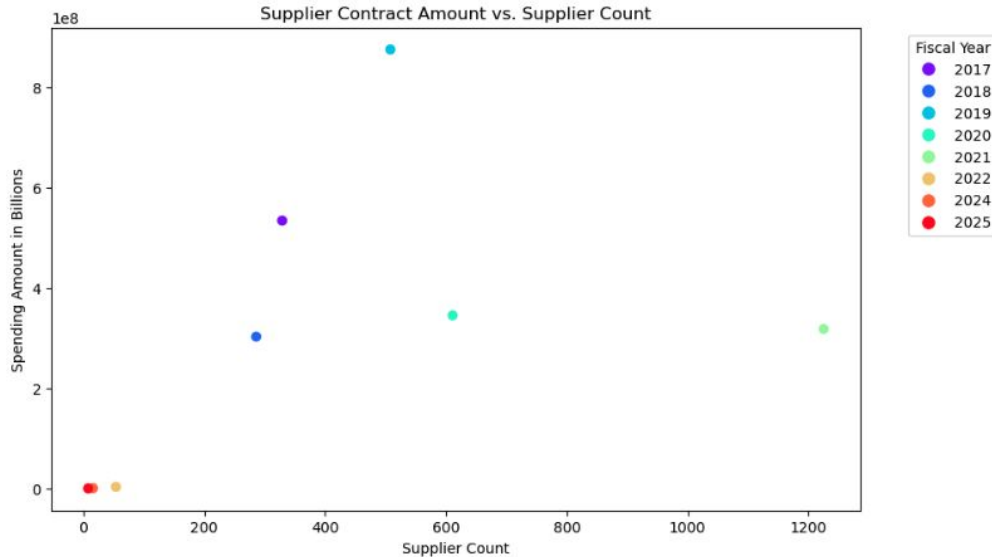
Bar chart showing amount of money country invested year over year



Bar chart showing project count country had working for them year over year



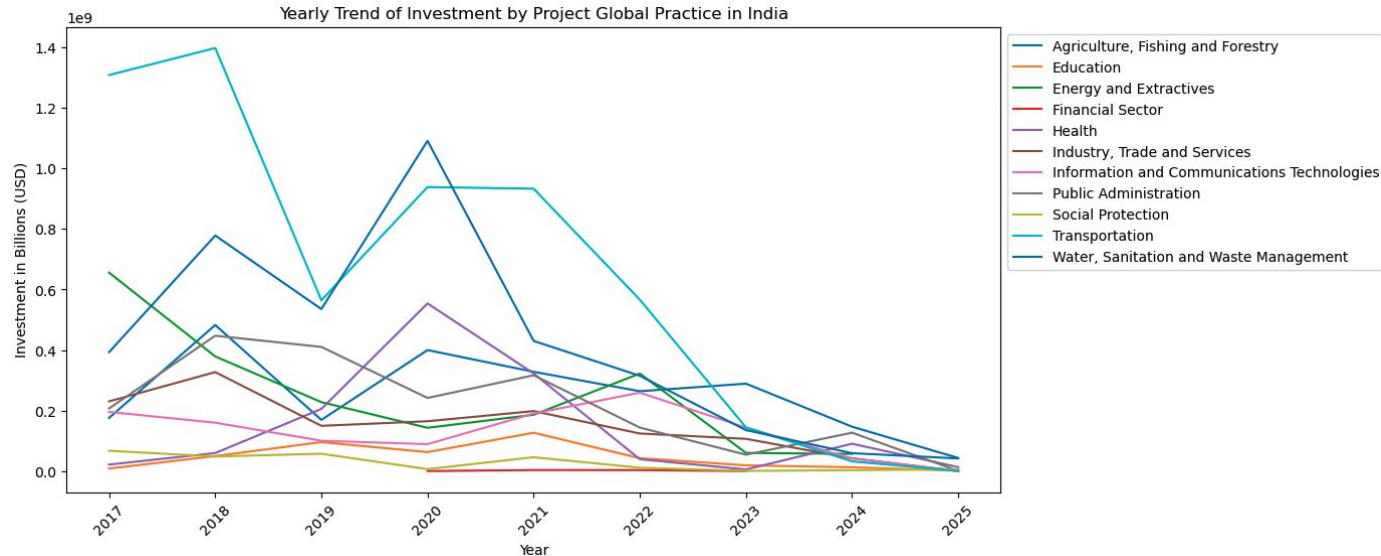
# Relationship between investment Vs project count



Scatter plot to identify if there is a relationship between amount of money Afghanistan invested vs no. of times suppliers it had every year.



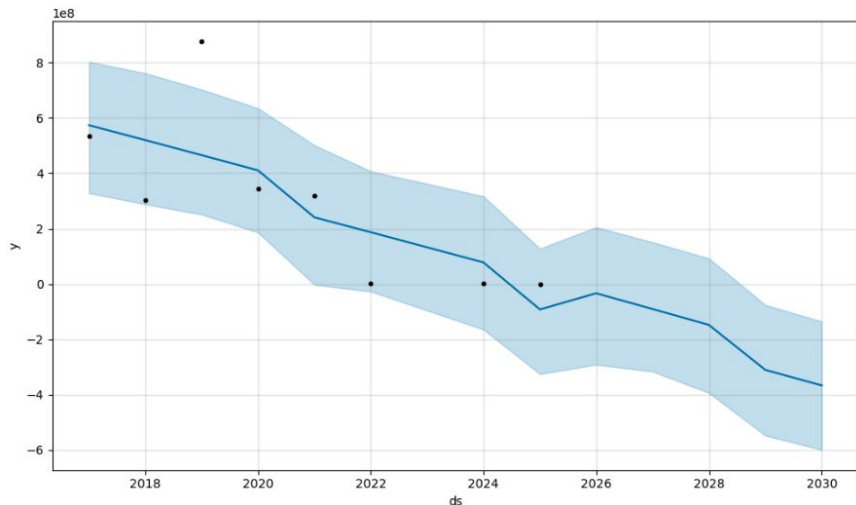
# Yearly Trend of Investment by Practice



Year over year trend analysis by area of practice to identify the area in which most investment is made.

# Forecast of Investment/Projects for next 5 yrs

Forecast of investment to be made in future

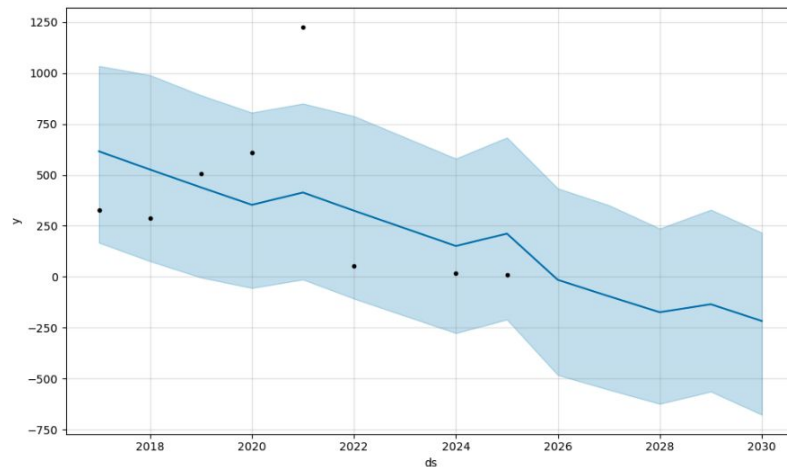


Prediction: Negative

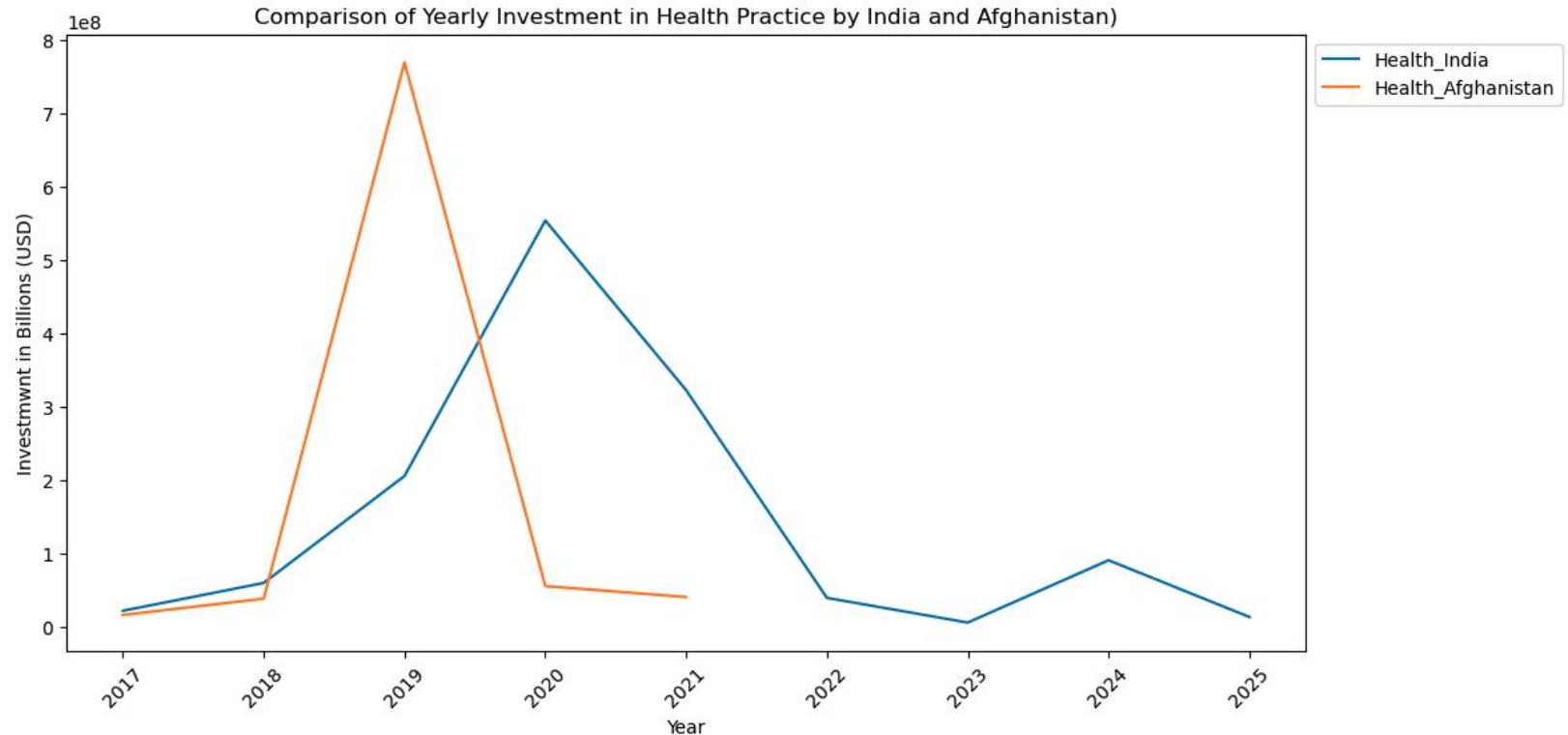
Reason: US withdrawal in 2021

Question: Is country doing great without any support?

Forecast of Projects to have in future



# Comparison between India Vs Af in Heath Practice



# Major Findings

- Project Global Practice focused more on Agriculture, Fishing, and Forestry(20%)
- Most projects were for consultant services (38.9%)
- Most countries were their own major suppliers
- China had the highest total supplier contracts
- India was the highest borrowing country
- Afghanistan and India both made hefty investment in Health practice however in India Trend increased significantly in 2020 possibly due to Covid.

# Future Questions

1. How can we better measure the impact of investment contracts in developing countries?
2. Can we evaluate how worthwhile these contracts are given more time?
3. Across different project categories, are there other metrics that can be analyzed to find correlative patterns between investment and financial stability in these sectors?