

Relationship between Foreign Aid and GDP Growth

Case Study based on Nepal

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Dataset Used

This study explores the relationship between foreign aid i.e. Overseas Development Aid (ODA) per Capita (\$) and Gross Domestic Product per Capita(\$) using the **World Development Indicators** dataset.

Motivation

Role of Foreign Aid represented by Overseas Development Assistance, (here 'Net ODA received per capita - \$) is one of the most debated issue in development economics [1].

Proponents cite success stories from polio eradication to recent initiatives for sanitation and vaccination by Bill Gates as instrumental in tackling the broad development challenges faced the mankind [2], [3].

However critics of foreign aid system point out that the aid system is highly inefficient in reaching and helping the most needy, while a lot of the aid amount goes to operational expenses that often reaches the already well of as well as foreign development officials [4], [5].

The objective of this study is to look at how the amount of foreign aid received by a country (here indicated by ODA per capita) is correlated to GDP growth per capita (here indicated by GDP per capita), by considering the case of one of the least developed country in the world – Nepal.

[1] <https://developmentaidnews.wordpress.com/2016/08/24/pros-and-cons-of-foreign-aid/>

[2] <https://borgenproject.org/polio-eradication-in-nigeria-demolishing-disease/>

[3] <https://www.theguardian.com/world/2017/feb/14/bill-gates-philanthropy-warren-buffett-vaccines-infant-mortality>

[4] <https://blogs.spectator.co.uk/2017/04/9824422/>

[5] <https://www.theguardian.com/commentisfree/2018/sep/02/as-a-system-foreign-aid-is-a-fraud-and-does-nothing-for-inequality>

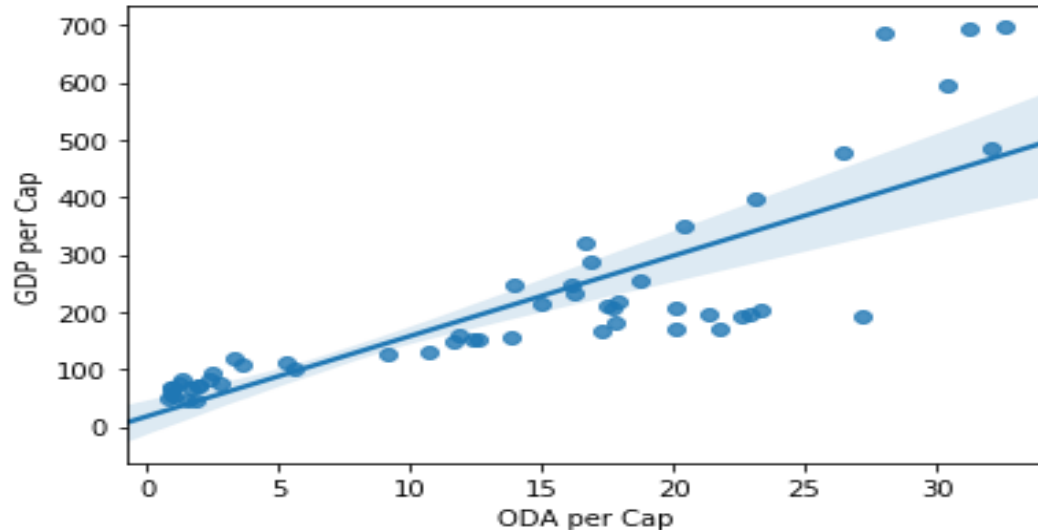
Research Question(s)

Does receiving Overseas Development Assistance (Foreign Aid) help a country in actual development i.e. increase in GDP per capita ?

This is an important question for economist, policy makers and governments, as well as the citizens of underdeveloped countries, like myself. Understanding the influence of foreign aid on development can help formulate suitable development policies and priorities for countries, as well as having an informed civil society can help check the activities of the governments of underdeveloped countries and raise voice against depending too much on foreign aid.

Finding

There seems to be strong correlation between receiving foreign aid (Net ODA per capita - \$) and gross domestic product (GDP per capita - \$), considering the case of Nepal.



Analysis of 54 years of data from Nepal, between 1961 and 2013 (some year may be missing) suggests that the GDP per capita is positively correlated with Net ODA received.

Correlation Coefficient = 0.834

P Value = 5.064253994855163e-15

P-value:

The P-value is the probability value that the correlation between these two variables is statistically significant. By convention,

- p-value is < 0.001 : we say there is strong evidence that the correlation is significant.
- the p-value is < 0.05 : there is moderate evidence that the correlation is significant.
- the p-value is < 0.1 : there is weak evidence that the correlation is significant.
- the p-value is > 0.1 : there is no evidence that the correlation is significant.

Correlation Coefficient:

Correlation coefficient ranges from (+)/(-) 0 to 1, +1 implies absolute positive relation and (-) implies negative relation. Coefficient 0 implies no association or correlation

Limitations of Study / Assumptions

- There are various other factors that influence the GDP per capita. While I wanted to assess the influence of other factors like 'Lending Rates = %' and 'Net Foreign Direct Investment as % of GDP' there were not enough data points corresponding to same year.
- Net ODA per Capita may not capture all forms of direct and indirect foreign aid while the use of GDP as a symbol of country's prosperity is also debated in the academic and professional domain.

Acknowledgements

Reviewed several online article on development aid, and coursework on 'Poverty and Prosperity..' an online course offered by Oxford University on eDX.

References

- [1] <https://developmentaidnews.wordpress.com/2016/08/24/pros-and-cons-of-foreign-aid/>
- [2] <https://borgenproject.org/polio-eradication-in-nigeria-demolishing-disease/>
- [3] <https://www.theguardian.com/world/2017/feb/14/bill-gates-philanthropy-warren-buffett-vaccines-infant-mortality>
- [4] <https://blogs.spectator.co.uk/2017/04/9824422/>
- [5] <https://www.theguardian.com/commentisfree/2018/sep/02/as-a-system-foreign-aid-is-a-fraud-and-does-nothing-for-inequality>