



Using the GRADE tool – a step-by-step guide¹

Contents

Conducting a single country analysis	2
Other options in Advanced	5
Conducting a multi-country analysis.....	6

The following **five panels** are used

Using the GRADE Tool

Translating additional revenue into development and human rights outcomes

- Select Countries**


Select from the list or click the map. All countries are selected by default — click oceans to reset the view.
- Enter Revenue**


Choose the revenue measure and unit, then enter the additional revenue amount. Use the Deflator tool for constant prices.
- Choose Governance Effect**


Model the impact of revenue alone, or the combined impact of governance and revenue (the combined effect is generally used).
- Set Projection Period**

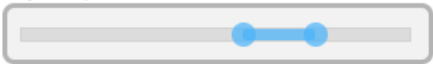
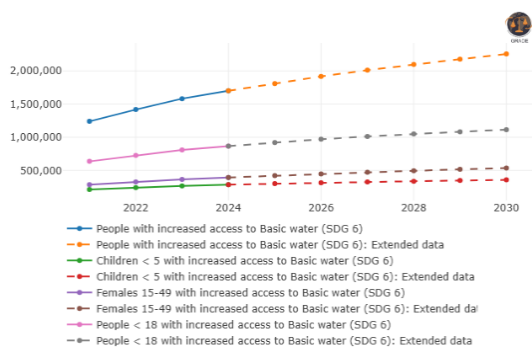
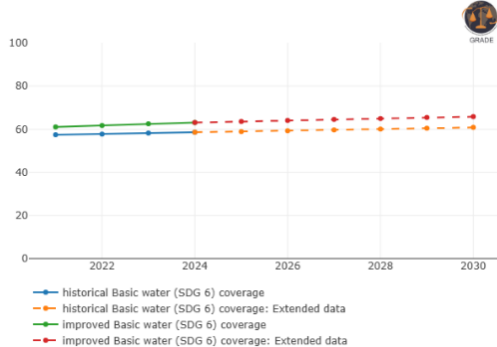

Drag the slider to set the start year and projection window (e.g. 2020–2030).
- Select Outcome**

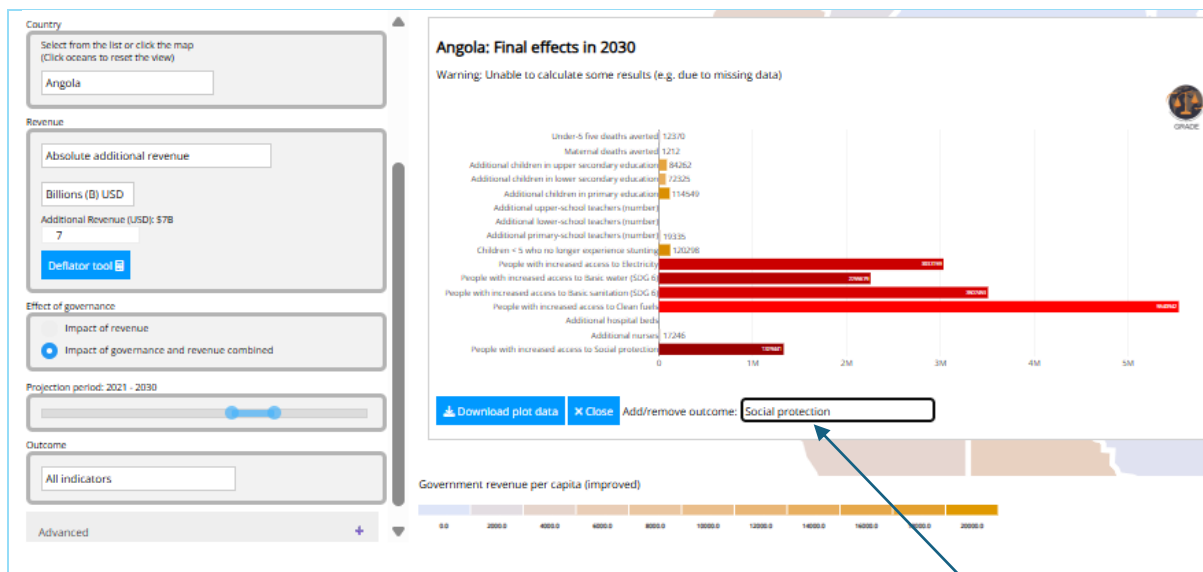

Choose a development or human rights outcome, such as basic sanitation (SDG 6). Open Advanced for further options.

¹ The tool can be accessed here <https://gradetool.org/tools/the-grade-tool/> or <https://www.st-andrews.ac.uk/~grade/simulations/>. Also see [Frequently Asked Questions](#)

Conducting a single country analysis

1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Country Select from the list or click the map (Click oceans to reset the view) Angola		Select the country of interest from the drop-down list,		
1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Revenue Absolute additional revenue USD Additional Revenue (USD): \$NaN Deflator tool		Estimates of additional revenue can be entered from the drop down in any of the following ways. GRADE uses constant 2015 USD. (see below) 1. Absolute additional revenue in USD, Millions of USD, or Billions of 2015 USD. 2. Additional revenue per capita in 2015 USD 3. Increase as a percentage of government revenue per capita. 4. Upload as a CSV file is most useful if carrying out a multiple-country analysis (see below). 5. Estimates expressed in current USD should be converted to constant 2015 USD to allow for comparability over time. This can be done using an appropriate deflator tool. 6. Tip: The tool can also be used to calculate the percentage increase in government revenue per capita by inputting the absolute amount and selecting the year when there was this increase – the panel will show this as a percentage.		
1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Effect of governance Impact of revenue Impact of governance and revenue combined		This panel allows users to isolate the impacts of additional revenue alone. However, for most purposes, it is recommended to select the 'impact of governance and revenue combined', which captures the full effect of additional revenue, including its influence on governance and subsequent outcomes on the SDGs. To see the difference between the two, toggle between them.		

1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Projection period: 2020 - 2033 		Adjust the start and end sliders to match the years for which data are available, or the years over which you wish to project. If estimates are available for only a single year, but the associated losses or gains in government revenue are expected to occur over multiple years (e.g., from tax abuse), these can be projected over several years.		
1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Outcome Basic water (SDG 6)		Select the outcome or SDG indicator of interest.		
The projection: This appears on the panel on the right and can be plotted as the population numbers or as percentage coverage results. Use the button to toggle between the population results and the coverage in percent.		Estimations based on WDI data appear as solid lines. Estimations based on extensions appear as dashed lines. (See Frequently Asked Questions for questions on the extensions). The plot can be downloaded as a PNG file, or the data can be downloaded as an excel file, which also includes the governance data.		
				
Multiple outcomes for one country				
Outcome Multiple indicators		For multiple outcomes for one country, select Multiple Indicators in the outcomes panel (first one on the dropdown).		
The projection will appear in the panel on the right; see below for an example from Angola. The graph shows the number of people who will benefit in the final year.				



Note: Outcomes can be added/removed from the graph using this button at the bottom.

To present the proportion for each outcome:

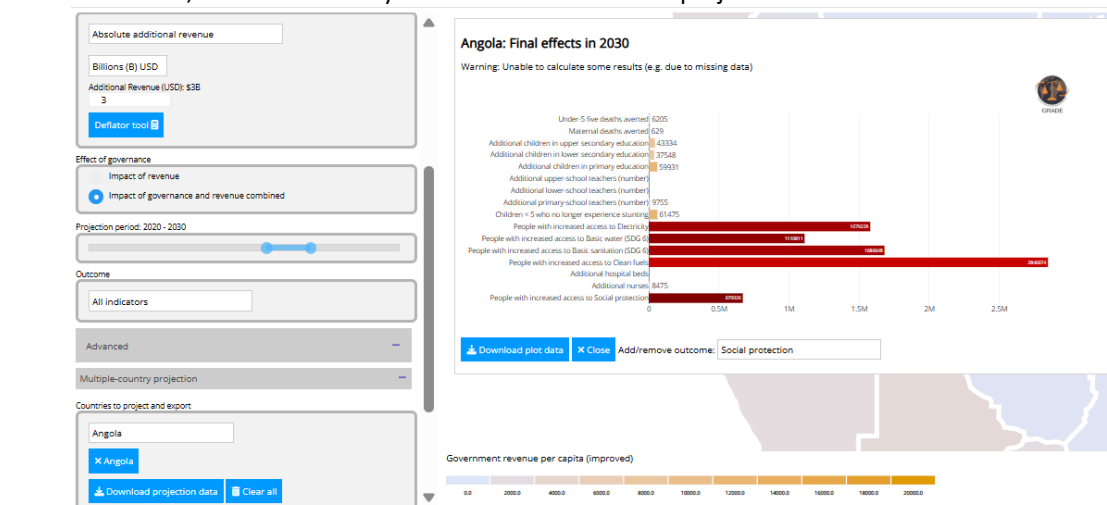
Select the **Download plot data** button for the data in an Excel spreadsheet for each indicator.

Next to the absolute number, the proportion of those who do not have access to this development or SDG indicator /human right is available for each of the indicators. The Additional Government Revenue required to save each child's life is also available.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Under-5 five deaths averted	Cost per under-5 life saved	Proportion of under-5 children who do not survive	Additional children in upper secondary education	Proportion of those who do not have access to Upper-secondary school attendance	Additional children in lower secondary education	Proportion of those who do not have access to Lower-secondary school attendance	Additional children in primary education	Proportion of those who do not have access to Primary school attendance	Children <5 who no longer experience stunting	Reduction in stunting as a proportion of those who are stunted	People with increased access to Electricity	Proportion of those who do not have access to Electricity	People with increased access to Basic water (SDG 6)	Proportion of those who do not have access to Basic water (SDG 6)	People with increased access to Basic sanitation (SDG 6)	Proportion of those who do not have access to Basic sanitation (SDG 6)	People with increased access to Clean fuels	Proportion of those who do not have access to Clean fuels
12208	638467.6	0.138185	90355	0.075883	80402	0.08738	132798	0.174191	137050	-0.04264	3679003	0.197968	2145698	0.121266	3065760	0.154202	6063648	0.284981

To present the cumulative numbers for one country

Select the country of interest, select the revenue, governance, projection period and 'all indicators'. Select Advanced, select the country of interest and download projection data.



The download will contain the entire dataset for this country.

	A	B	C	D	E	F	G	AS	AT	AU	AV	
	country	iso	year	income level	region	total population	historical grpc	People with increased access to Basic water (SDG 6)	Children < 5 with increased access to Basic water (SDG 6)	Females 15-49 with increased access to Basic water (SDG 6)	People < 18 with increased access to Basic water (SDG 6)	F
	Angola	AGO	2020	LMIC	SSF	33451132	519.14	511881.3	89017.49	117411.6	262917.6	M
	Angola	AGO	2021	LMIC	SSF	34532429	556.38	650497.2	112129.5	149414.2	333887.9	M
	Angola	AGO	2022	LMIC	SSF	35635029	559.57	744629.6	127204.3	171414.1	381631.9	M
	Angola	AGO	2023	LMIC	SSF	36749906	565.15	811209.7	137282.6	187235.9	414820	M
	Angola	AGO	2024	LMIC	SSF	37885849	559.13	858931.7	143955.6	198914.2	437900.9	M
	Angola	AGO	2025	LMIC	SSF	39040039	558.64	905880.2	150270.3	210613.1	460103.6	M
	Angola	AGO	2026	LMIC	SSF	40215179	562.89	954602.1	156688.8	222900.4	482708.8	M
	Angola	AGO	2027	LMIC	SSF	41415124	563.55	997155.6	162032.5	233911.6	501702.3	M
	Angola	AGO	2028	LMIC	SSF	42641676	563.95	1036813	166904.4	244391.1	518773.2	M
	Angola	AGO	2029	LMIC	SSF	43891851	563.83	1073978	171381.7	254378.6	534220.4	M
	Angola	AGO	2030	LMIC	SSF	45160458	564.31	1110811	175738.3	264368.9	549070.7	M

Outcomes are indicators across four domains: child and maternal survival and health, education, basic services (water, sanitation, electricity, clean fuels), and social security.

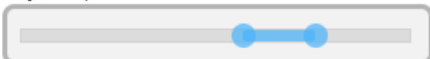
Cumulative outcome figures are only computed for flow variables (deaths averted, additional child school years) which can be summed across years.

For stock variables (e.g. the number accessing basic water) we generally report the value in the latest year; the same person is counted only once. See [Frequently Asked Questions](#)

Other options in Advanced

The Advanced button	
Advanced Multiple-country projection Governance quality Target SDG Data sources	The Governance Quality button allows for the tweaking of governance indicators to demonstrate the impact of a change in governance on outcomes. This option can be used if the impact of revenue only has been selected in Panel 2. The Target SDGs button allows estimates of the cost of increasing the coverage of the SDG indicators in individual countries. The Data sources button allows download of the population data and government revenue data used in GRADE and if excel is downloaded there is a sheet with information outlining updates and sources of data.

Conducting a multi-country analysis

1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Country Select from the list or click the map (Click oceans to reset the view) All countries		Country panel: select 'All countries' from the drop-down list.		
1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Revenue Use CSV file Upload revenue CSV  My revenue data is specified as: Absolute additional revenue		Select 'Use CSV file' and select the blue Upload revenue CSV button. Indicate how the revenue is specified: This can be 1. absolute additional revenue in 2015 USD, 2. additional revenue per capita in 2015 USD or 3. increased revenue as a percentage of government revenue.		
<pre>REVENUE, ISO, Year 3.26, ABW, 2002 0.00, SSD, 2002 0.07, LSO, 2002 0.09, BFA, 2002 0.21, STP, 2002</pre>		Upload data for multiple countries as a CSV file in the format shown on the left. Create a CSV file in this format before uploading. Column 1 'REVENUE' (indicating how the revenue is specified). Column 2 "ISO" detailing the country's ISO-3 code. Column 3 "YEAR" listing the year in which the increase in revenue began.		
1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Effect of governance Impact of revenue ☒ Impact of governance and revenue combined		Generally, select 'the impact of governance and revenue combined'		
1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome				
Projection period: 2020 - 2033 		Adjust the start to coincide with the CSV file and end to coincide with the period of interest.		
If estimates are available for only a single year, but the associated losses or gains in government revenue are expected to occur over multiple years (e.g., from tax abuse), these can be projected over, for example ten years. Projecting revenue changes over time allows for the impact of the increase in revenue on governance indicators, and therefore on development outcomes.				

1. Select Country 2. Enter Revenue 3. Choose Governance 4. Set Projection 5. Select Outcome	
Single outcome	
Outcome Basic water (SDG 6)	Select the outcome or SDG indicator of interest.
Multiple outcomes	
Outcome All indicators	Choose 'all indicators'
Advanced	Select the advanced button
Advanced Multiple-country projection Governance quality Target SDG Data sources	After selecting the advanced button, a drop down will appear, here select the ' Multiple-country projection '
Countries to project and export All countries ✕ All Download projection data Clear all	Here select the Download projection data button – expect a very large dataset!