

B. Who has the Good Life?

Wallerstein's World-Systems Theory. In the 1970s, Immanuel Wallerstein published the World-Systems Theory to provide a method of analyzing and discussing the economic development of societies around the world. Wallerstein was writing at a time when there was a rapid acceleration of economic globalization, causing every society in the world to become integrated. Thus, according to Wallerstein, to best understand a society's economic status, a person must also understand how that one economy compares to the rest of the economies in the world. For example, \$439 million sounds like a large amount of money. However, when a person compares the wealth of the Kingdom of Tonga (\$439 million) to the annual wealth of the USA (19 trillion), Tonga's annual wealth appears to be quite small. Wallerstein's World-Systems Theory is one of the most important in the course, both for understanding the world and for framing or categorizing information in future topics in a way that is easier to understand.

Wallerstein divided the world's economy into three categories: Core, Periphery and Semi-Periphery:

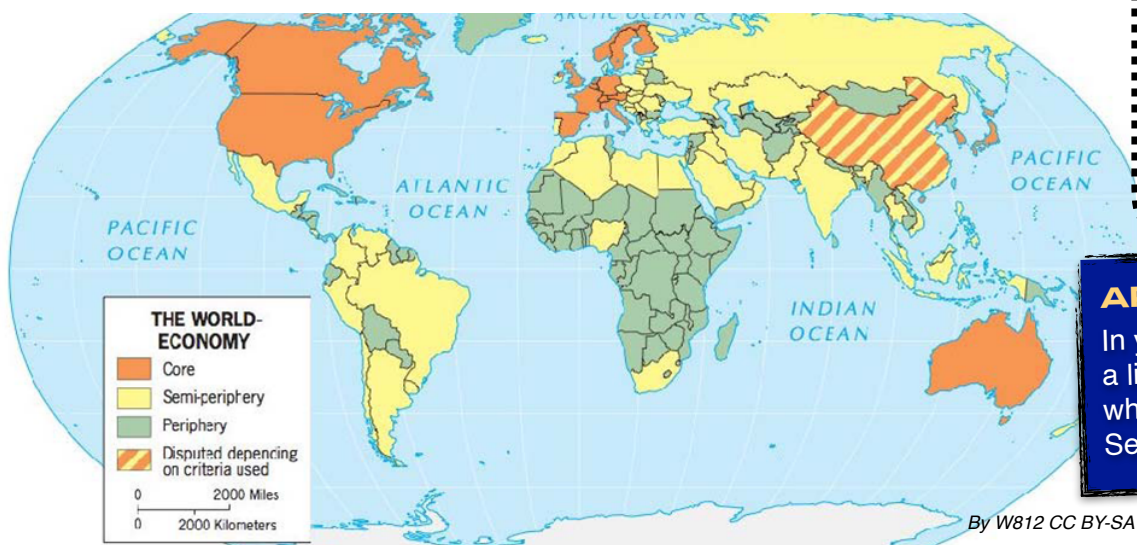
STANDARD: Describe Social, Econ measures of development.

About Models

In APHuG, models and theories provide important frameworks for understanding key principles. The models are not perfect, but instead attempt to provide generalizations to help understand complex topics, relationships, and interactions.

APPLICATION #1

In your notebook, create a list countries or regions which are Core and Semi-Periphery.



- **Core.** Core economies are found in the wealthiest, most developed countries (MDCs) in the world and are highly industrialized and driven by innovation. Their businesses utilize advanced technologies to provide complex services and equipment all around the world. As a result, over 50-60% workers are employed in tertiary sector jobs, with the secondary sector employing the second largest percentage. *The primary sector employs the smallest percentage of workers.* This distribution of labor is made possible by the advancement of the machinery and the ability to meet the demand for raw materials through global trade.
- **Periphery.** Periphery countries are the least developed countries (LDCs) and are composed of over 60-70% primary sector jobs. Most workers labor on farms using hand tools and animals, attempting to grow enough food for their families to eat until the next harvest. The largest local businesses are often focused on extracting raw resources from the earth, like cutting down trees or mining for valuable minerals such as cobalt, vermiculite, and zirconium. *In the global economic network, periphery economies export the low-priced raw materials and cheap labor required for the advanced economies to manufacture.* Periphery economies have a small tertiary sector and an even smaller secondary sector. As a result, the periphery must rely on imports and loans to acquire finished goods from Core economies.
- **Semi-Periphery.** The Semi-Periphery is composed of economies that were once periphery but have developed to a point where their economy is somewhere between Periphery and Core. They are working through the transition and are called the Newly Industrialized Countries (NIC). They were not part of the early industrialized countries of the 1800s but have rapidly industrialized since the 1950s. Countries in the Semi-Periphery have a strong secondary sector, with a focus on *importing the raw materials from the periphery and manufacturing them into finished goods.* However, Semi-Periphery countries are not yet “fully developed,” displaying the extremes of both poverty and advancement.

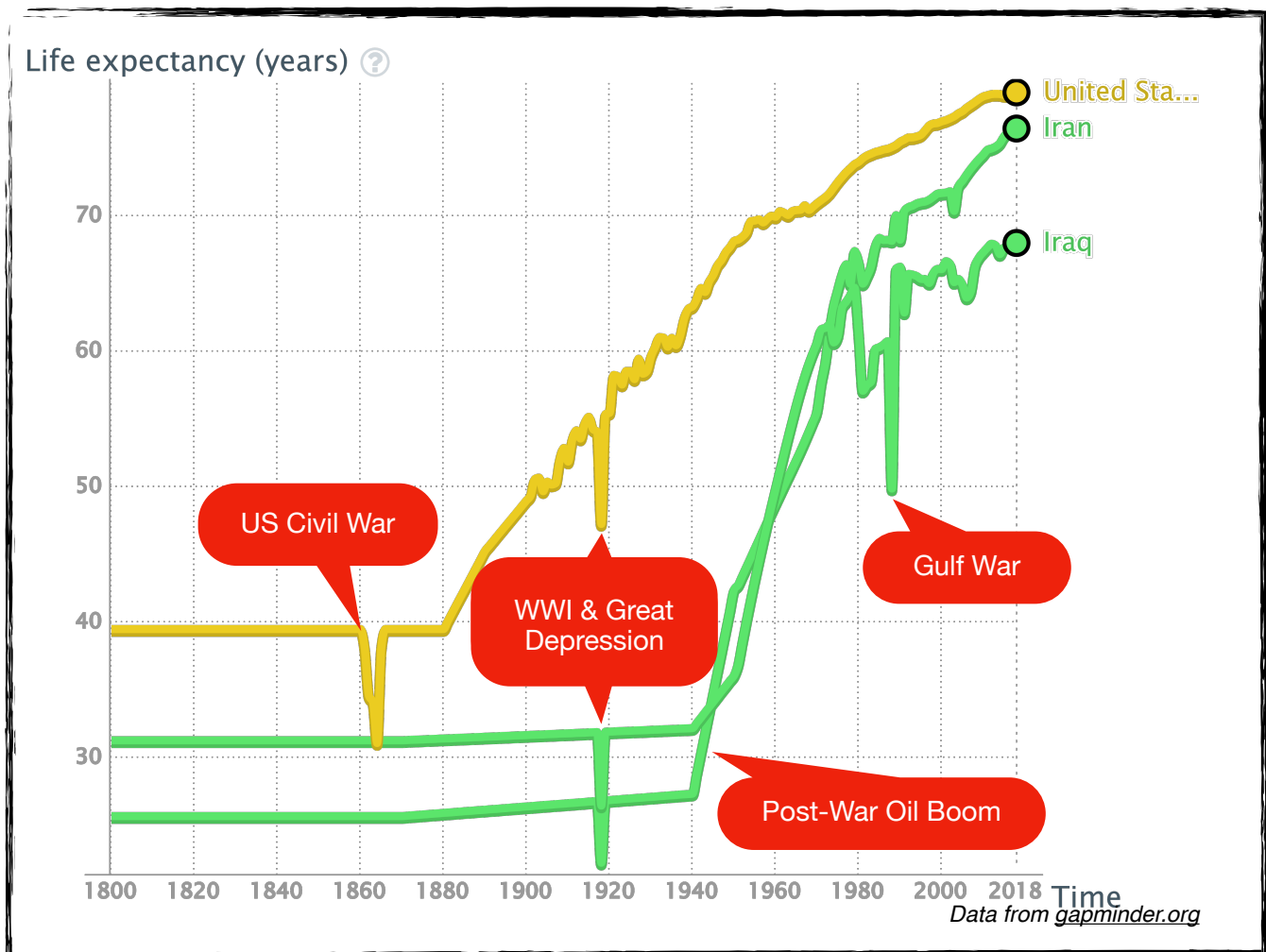
C. How to Measure the Good Life?

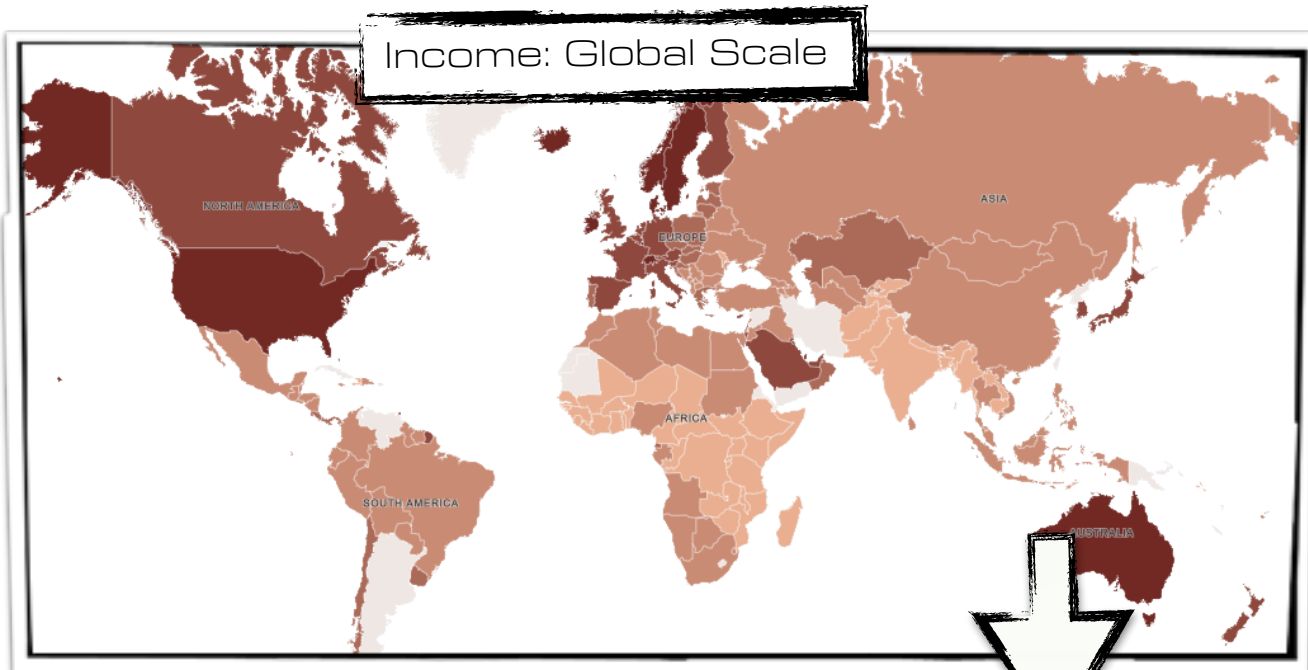
All About the Indicators

The problem with discussing *how* to achieve the Good Life is that no one society can truly define what it means to live the Good Life. Indeed, who gets to decide what is good in life and what is not? Who gets to determine which lifestyle everyone else in the world should aspire towards? The answer, as with most things, is that the rich and powerful believe they are living the best life; thus, the rich believe it is their place to inform and guide everyone else.

Following is a list of indicators, or measuring tools, created by the core countries to measure what they believe to be the Good Life. Each indicator attempts to give quantitative data about an aspect of human society and was created to measure societal aspects such as wealth created, years in school, literacy rates, access to clean water, amount of available food, how many children are born, how many people died, amount of inequality, etc. Indicators are powerful tools. They can be tracked over time, allowing people to see if the indicator is growing/increasing or shrinking/declining. Indicators can be used to compare one country to another or one region of a country to another. This allows for a comparative analysis to better understand the causes and effects of certain events or action programs. As an illustration:

The graph below displays the quantitative data regarding life expectancy over the past 200 years in the USA, Iran, and Iraq. Life expectancy measures the average age a person can expect to live until. Before 1880, life expectancy in the USA was 40, while Iran and Iraq were below 35 years old. In 1960, the life expectancy in the USA was 70, while Iran and Iraq were both 45 years old. In 2018, the life expectancy for both the USA and Iran is now 75 years old, while Iraq is just below at 68. This indicator shows that over time, people in all three locations are living longer. Indicators can also be used to compare the quality of life between regions or countries as well as the impact of geopolitical events on the quality of life.



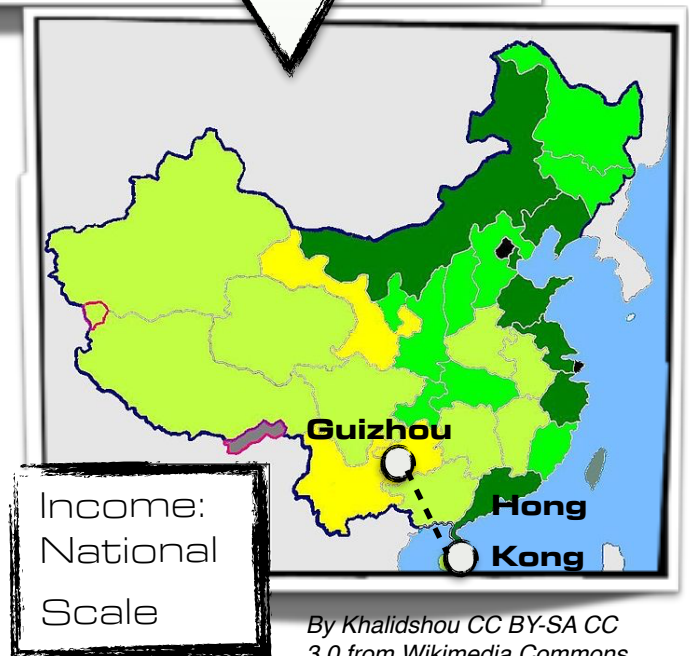


Given the power of indicators, they are considered important tools for developmental organizations seeking to improve the lives of people within a country or around the world. Government organizations, non-government organizations (NGO), and multinational organizations use indicators to understand the spatial distribution and spatial relationships of certain problems around the world, and then create programs to address those in need. These development programs seek to identify who is in need, provide the appropriate assistance, and then measure the success (or failure) of the program over time.

Indicator Scale

While these indicators play an important role in understanding the world, the issue of incomplete data must always be acknowledged. The story indicators tell is directly effected by the scale being displayed:

- **Global Scale.** The global scale is good for comparing regions of the world and gaining an international perspective. However, the global scale has the flaw of being too generalized, hiding extreme regional or local differences within a country.
- **Regional/National Scale.** Where the global perspective provided an average for the entire country, the regional scale allows for important variations to emerge. China, on the global scale, looks to be a moderately successful economy. When looking at the regional scale however, stark differences in quality of life appear. The people living in Shanghai and Hong Kong have an excellent income, equal to those in the Core. Less than 400 miles away is Guizhou, one of the poorest regions in China. In Guizhou, the income is on par with the poorest LDC regions in Central Asia & Africa, with dirt roads and minimal healthcare.



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Data and Decision Making

Data and technology combine to create powerful analysis tools for decision makers. The Most Developed Countries (MDCs/Core) have stable governments equipped with advanced technologies and populations living in urban settings which allow for more accurate and thorough data collection. On the other hand, many Least Developed Countries (LDCs/Periphery) are lacking both the technology and the stable government structures to conduct such data collections. The Periphery populations are dispersed and scattered through out their rural regions, making it difficult for governments to

collect accurate information. Areas without electricity, internet, or roads have a high friction of distance; making them difficult and costly to access in order to be included in the data. Thus, the data tends to be incomplete and does not paint a completely accurate picture of the situation in impoverished regions (often times displayed as “no-data” on the maps). In other cases, countries do not want to share their data with the world. A government may decide it does not want to collect information about topics like the number of child laborers, or the treatment of women, because it would anger the wealthy regions who would withhold loans or trade agreements.

Exploring the Indicators & The Good Life

Analysis of components considered crucial to the Good Life generally uses six categories: Economic, Standard of Living, Education, Health, Environment, and Inequality. Each category utilizes indicators to measure a society’s progress in that category. It is critical to spatially analyze these indicators on a global scale, using maps to gain an understanding of the spatial distribution and spatial relationship of each indicator.

APPLICATION #2

Copy the following chart into your notebook. Using the maps on the upcoming pages, evaluate the quality of development for each region of the world based on the provided indicators. If the region scores well, write: Good. If they are in the middle, write: Ok. If they score poorly, write: Poor/Bad. Also, make note of any outliers, or countries who do not follow the regional trend (ex: Portugal’s income is lower than the rest of Europe. South Africa’s access to water is better than the rest of Sub-Saharan Africa).

Analysis Table	Economic	Standard of Living	Education	Health	Environment	Inequality
North America						
Caribbean						
South America						
Europe						
Russia						
North Africa						
Sub-Saharan Africa						
Middle East						
South Asia/ India						
East Asia/ China						
Oceania						
Australia						

WARNING This section contains a large number of maps. It is important to spatially analyze and understand the “story” each map is telling. These maps are important to understanding development around the world (and test questions will come directly from these maps.)

APPLICATION #3

The following is an Indicator Graphic Organizer intended for your notebook. This chart is meant to help focus your attention to the most critical aspects of each indicator to ensure understanding of the topic.

Category	Indicator Cheat Sheet	Official Definition	What does it really mean or measure?	What is “Good/Bad”?	What causes it to go up? down?
Economic	GDP/GNI				
	GDP Per Capita				
	Growth Rate				
Standard of Living	Clean Water				
	Sanitation				
	Electricity				
Education	Years in School				
Health	Life Expectancy				
	Malnutrition				
	IMR & CDR				
	MMR				
Inequality	GINI				
Environment	CO2 & Deforest				
	Drought & Disaster				
	Climate Risk				
Composite	HDI				
	MPI				

ECONOMIC INDICATORS

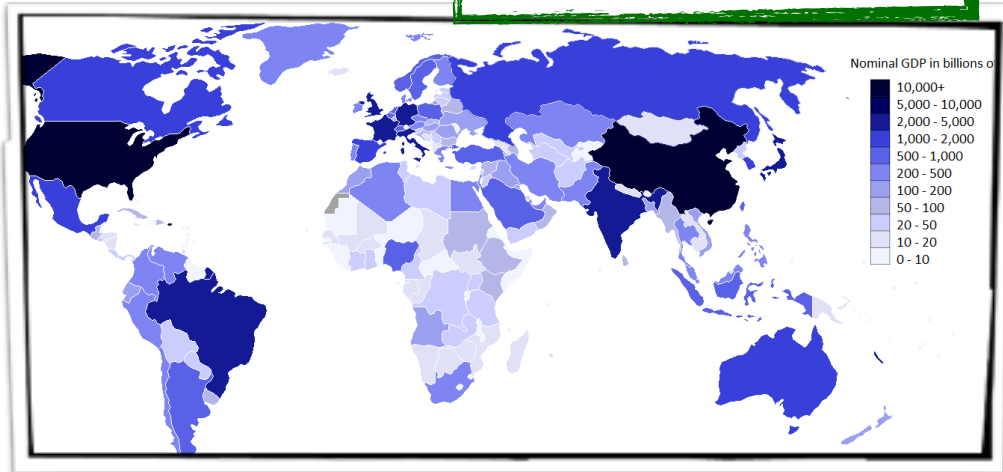
Economic indicators are used to measure the amount of wealth or money generated within a country's economy. With economic indicators, larger numbers are generally considered positive because it means businesses have generated a large amount of wealth. This means people can live a higher quality life, and the government can provide higher quality services. Inversely, a lower number or score is considered negative because it means businesses were not successful and only generated a small amount of wealth. With limited wealth, more people live in poverty, are unable to purchase the goods they need, and the government is unable to provide needed services. In order for a country to improve their economic indicators, they need to have more businesses producing and exporting products thereby generating more sales within their country.

FOUR ECONOMIC INDICATORS

Human Geography uses many indicators to measure the economic success of a country; four of them are discussed below. While they all measure wealth, the slight differences in how they measure wealth are important to understand:

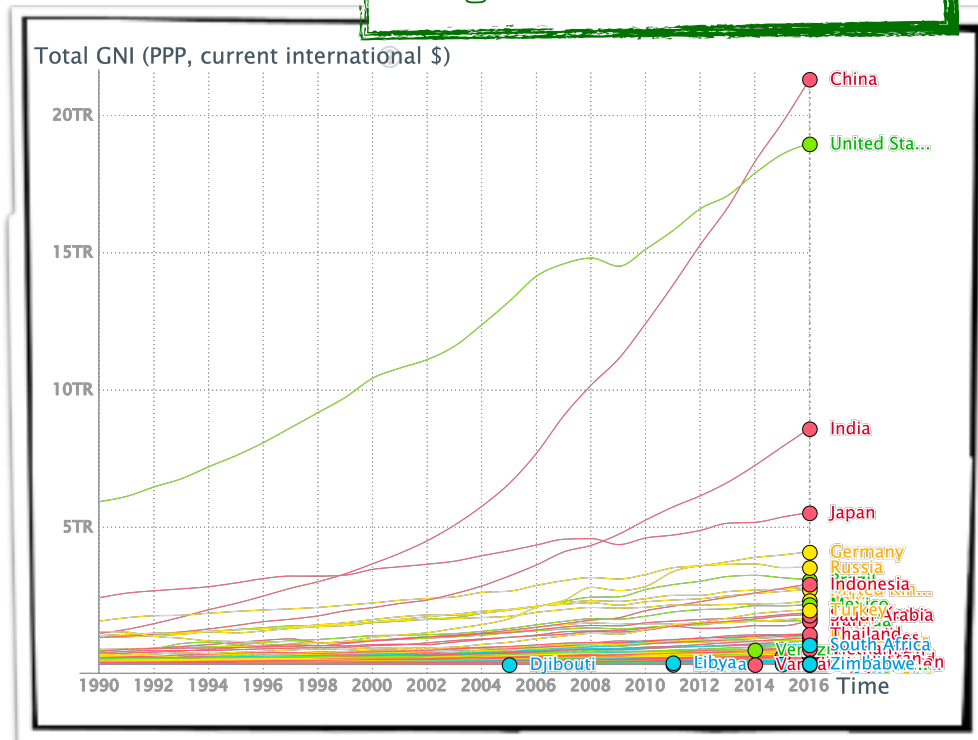
- **Gross Domestic Product (GDP):**
GDP measures the amount of wealth generated from selling the goods and services produced **WITHIN** the countries borders. If a company has outsourced their work to be produced in another country, that money does not get included in the GDP. For example: If a South Korean car company manufactures its cars in the USA, the wealth does **NOT** count towards South Korea's GDP because it was **NOT** produced in South Korea.
- **Gross National Product (GNP) OR Gross National Income (GNI):**
GNP/GNI measures the amount of wealth generated from selling the goods and services produced by the companies who have their headquarters in their country, no matter where in the world the product is produced. For example, if a South Korean car company has its headquarters in South Korea but their cars are manufactured in the USA... the profit counts towards S. Korea's GNI. The GNI also includes profits from financial tools like interest earned from international loans. If the USA loaned Argentina \$10 billion, the interest paid to the USA would count towards the USA's annual GNI. Thus, the GNI reflects the global influence of a country's businesses.

Nominal (Overall) GDP



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Largest GNI Since 1990

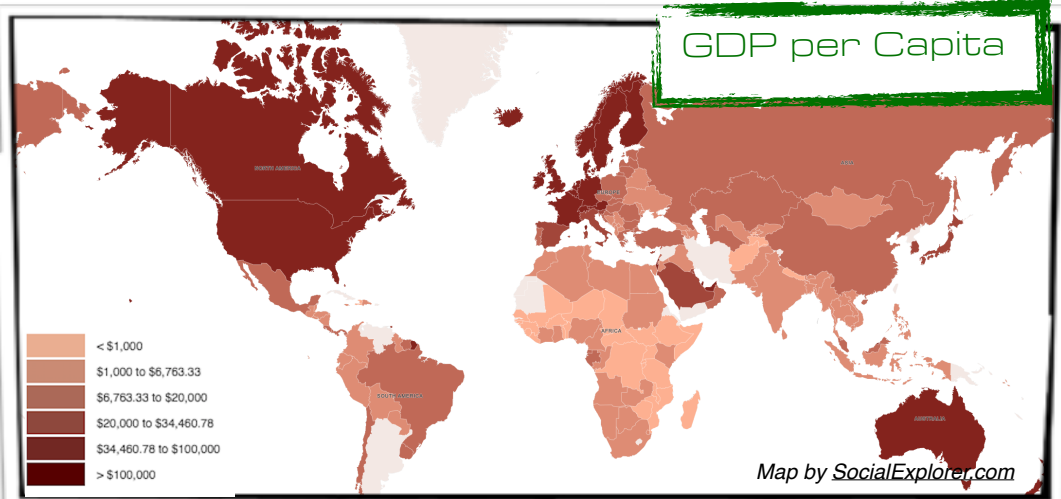


Graph by gapminder.org

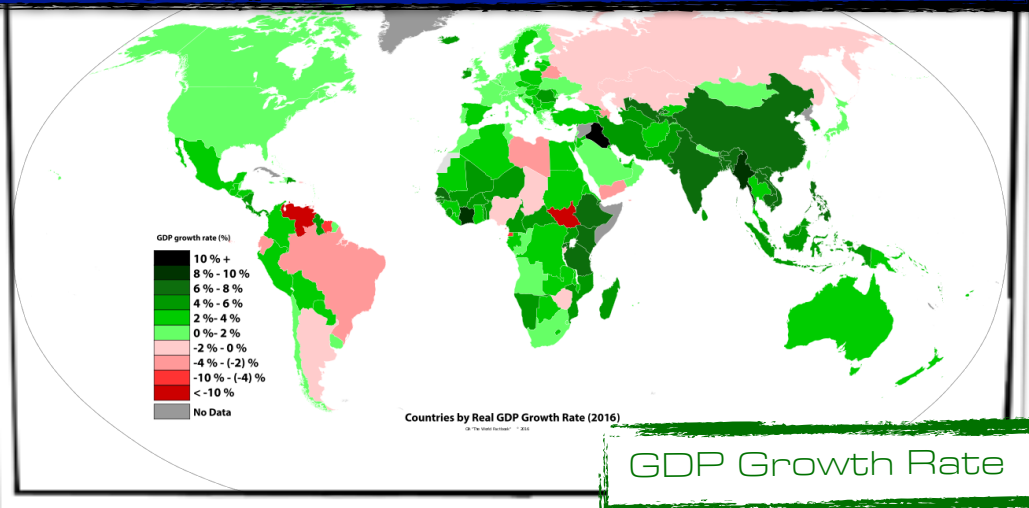
Per Capita

The term “per capita” means “per person.” It means the indicator was divided by the total population of a society.

- **GDP/GNI per Capita:** GDP per capita takes the amount of GDP for the entire country and divides it by the number of citizens in the country. This shows the AVERAGE amount of wealth available to each person in the country. It is a useful tool for comparing available wealth of the citizens in different countries around the world on a global scale.
- **GDP/GNI Growth Rate:** The GDP growth rate measures how much change there has been in the country’s GDP over a given period of time. The growth rate tells the story of which direction a country’s economy is trending. For example: Brazil has a strong GDP and GDP per capita, however in 2016 their GDP shrank by 4%. This means Brazil’s businesses are selling fewer goods and being less profitable than in previous years.



APPLICATION #4 Compare the GDP to the GDP per Capita: Do they tell the same story or different stories? If different, describe the differences.



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STANDARD OF LIVING INDICATORS

Standard of Living indicators measure the quality of HOW people live their daily lives. Topics include, but are not limited to: clean water, electricity, and sanitation (bathrooms/plumbing).

- **Clean/Improved Water.** This indicator measures how much “clean,” drinkable water is available to the residence. This water has been improved to reduce the number of chemicals, feces, or deadly germs. If the chart or map is discussing the number/percentage of people with access to improved water, a larger number indicates a positive situation. Clean water indicators can be improved by building dams to create stable and reliable sources of water, investing in sewers and sanitation, rain water collection, and water treatment facilities. Industries can help by improving their own chemical and trash removal processes, instead of dumping into a river or stream.
- **Sanitation.** The sanitation indicator measures how many people have access to sewers and water utilities when they need to urinate or



Photos: Zorlah Miller for Dollar Street (CC BY 4.0)

Water: Haiti (\$39/month)



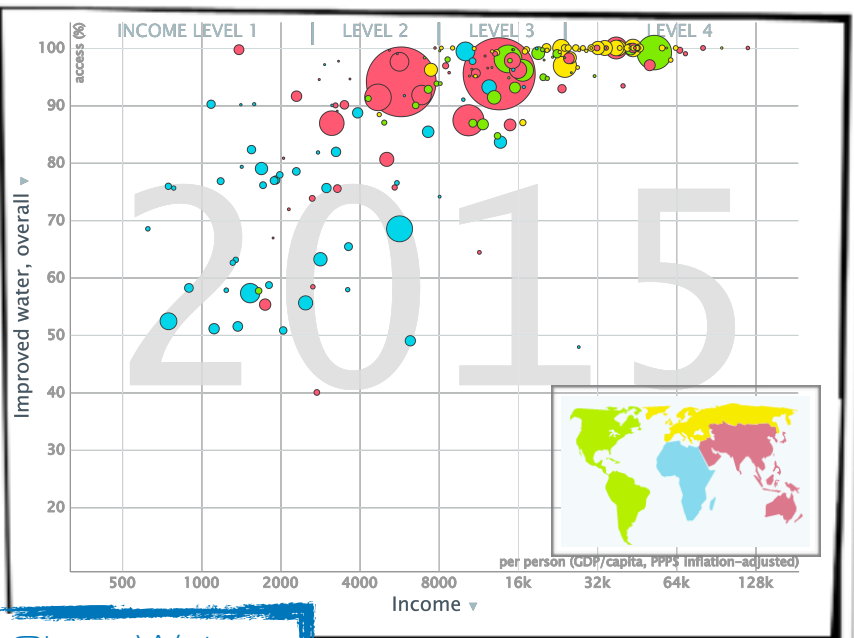
Water: India (\$1000/month)

These pictures show the lives of real families. What relationship is there between the quality of life and level of monthly income?

defecate. Societies without toilets and sanitation have “open sewers” where the waste contaminates their water and homes. The higher the number or percentage of people with access to sanitation, the better the quality of life within that society. Sanitation improvement typically begins with government policies, but it can also be installed with the help of NGO’s. Caution: pay attention to whether a map or chart uses percentages or raw numbers. For example: East Asia has 34% without access, which is half of the amount of Sub-Saharan Africa. *However*, in raw numbers, East Asia has a larger total number of people without sanitation than Sub-Saharan Africa.

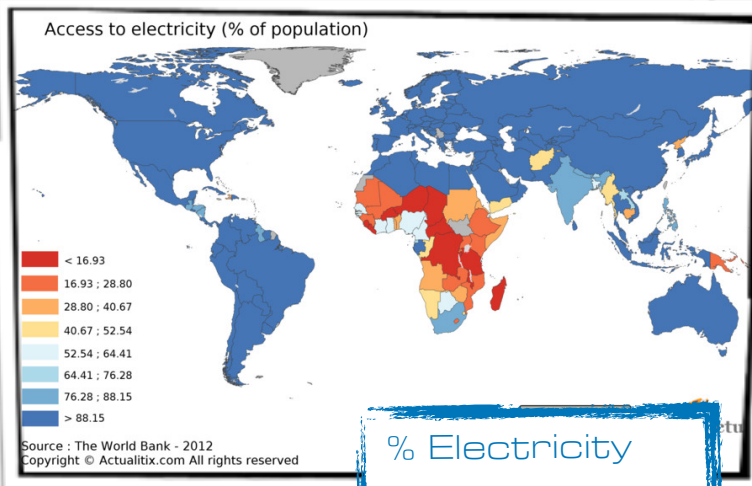
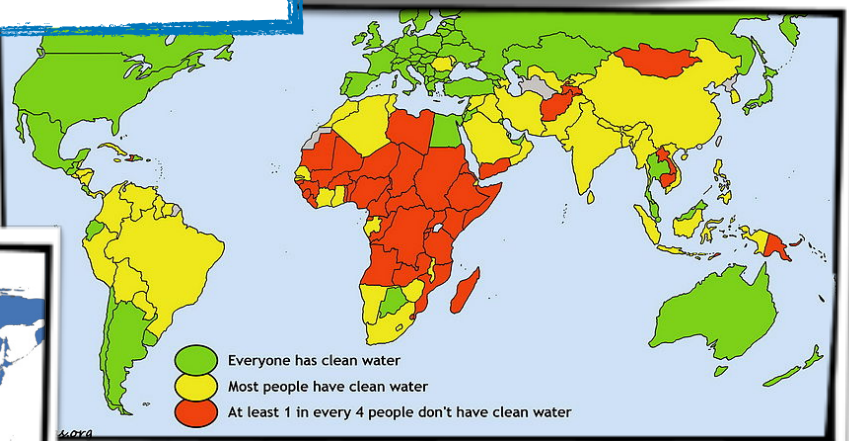
- **Electricity.** The electricity indicator measures the amount of people who have access to electricity in their homes. Electricity is important when measuring people’s access to machines that improve lives as well as economic productivity: stoves to improve the ability to boil water and healthful cooking, light bulbs for increased productivity, computers with internet access, refrigeration for food preservation, industrial machines, medical devices in hospitals, etc.

Income to % population with access to improved water. Size of bubble = population size. Color coordinates with the Continent.

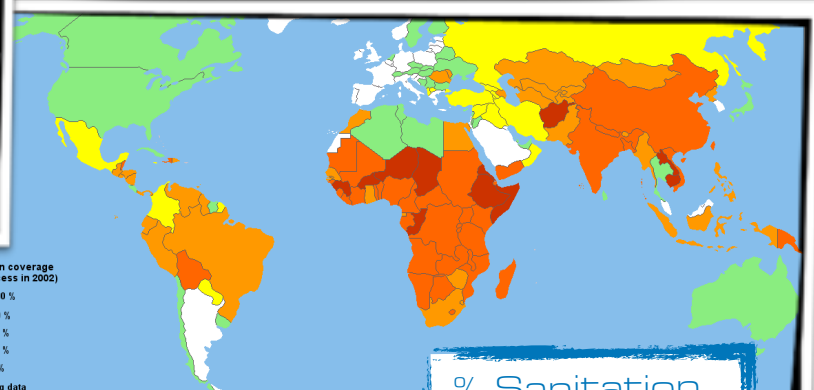


Graph by Gapminder

Clean Water



% Electricity



% Sanitation

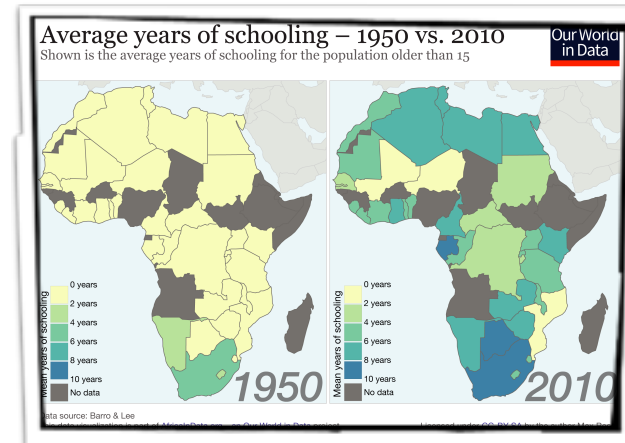
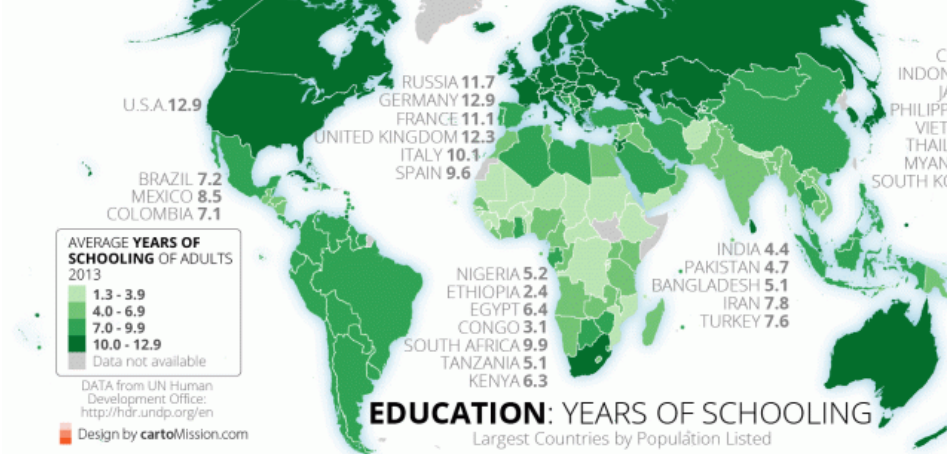
APPLICATION #5 What is the relationship between income and access to improved water sources, sanitation, and electricity? Why would this matter?

EDUCATION INDICATOR

The **Number of Years in School & Literacy Rates** are critical measurements of the economic potential of a society. Typically, the larger the number indicated the greater the amount of education. Years of schooling can be presented with special subgroups emphasizing gender, minorities, or specific age groups. Educational numbers have a direct correlation to the following aspects of a society:

- Better education helps people make healthier choices, reducing the spread of disease and avoidable death
- Improves political, economic, and social decisions leading to more profitable contribution in the globalized economy.
- Creates a more efficient, innovative, creative, and entrepreneurial workforce
- Increases profit potential that can break the cycle of poverty.
- Greater gender and racial equality.

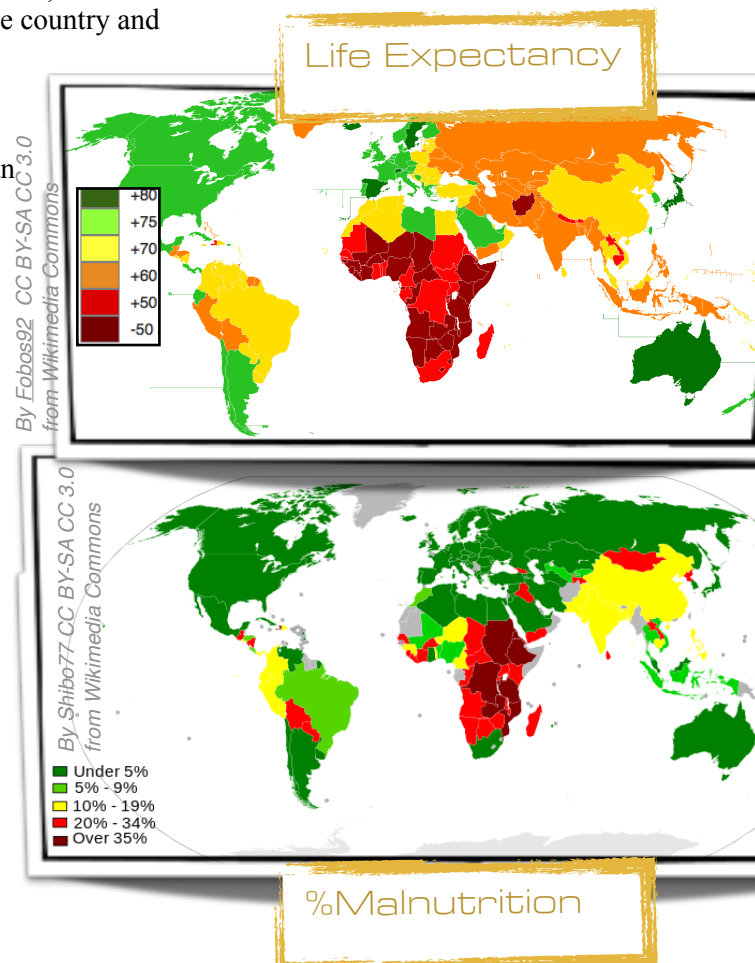
The most common way societies can improve their quality of education is by the governments increasing the amount of tax money and resources allocated to education. Societies can also send students to foreign countries with established educational systems on student visas with contracts to return and invest their knowledge into the home country. If a society is struggling financially and cannot afford the previous options, countries can allow NGOs who focus on education to come into the country and provide resources.



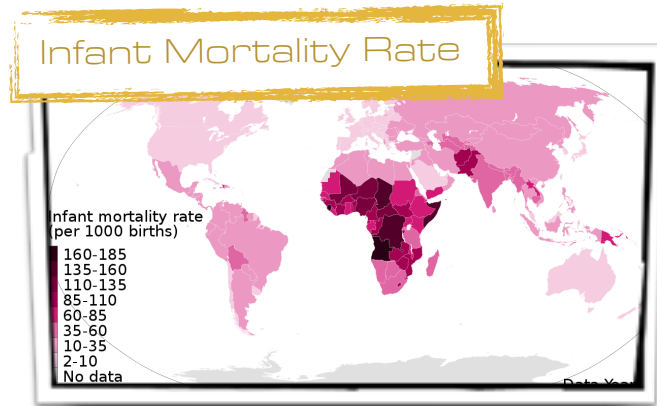
HEALTH INDICATORS

Health is a critical component of achieving the Good Life. When an increased number of people make healthier life choices, they achieve a higher quality and longer life. Healthy people are economically productive and place a smaller burden on society. Conversely, people with illnesses are less productive and place a larger burden on the society's healthcare system. The following indicators measure key aspects of a society's health and longevity:

- **Life Expectancy.** The life expectancy indicator provides information about the average length of time a person is expected to live: the larger the number of years, the higher the quality of life in a society. Life expectancy may be increased by improving food security, clean water, sanitation, and access to health care.
- **Malnutrition.** Malnutrition measures the people's access to adequate and diverse amounts of food. Nutrition is key to healthy pregnancy, child brain and body development, and healthy immune systems. Malnutrition at these vital stages can lead to preventable mental and physical handicaps - including blindness. These permanent handicaps are a barrier to the child's ability to be a productive, functioning member of the economy and society. Societies can improve their food security through increased global trade, better farming equipment/fertilizers, and building dams to stabilize the water sources.



- **Infant Mortality Rate (IMR) and Child Mortality Rate (CMR).** Infant Mortality Rate (IMR) measures the number of babies that die before one year old for every 1,000 live births. Child Mortality Rates (CMR) measures number of children who die before five years old per 1,000 live births. In the case of both CMR and IMR, a high number is a sign of significant problems. These rates are an important measure of the quality of a society's health care system, education system, access to nutrition, availability of clean water, as well as the treatment of women.
- **Maternal Mortality Rates (MMR).** Similar to the IMR, Maternal Mortality Rates (MMR) measure the number of mothers who die within 42 days of child birth per 100,000 live births. A high score is considered negative, with a low score being positive. MMR has been used as an indicator of the quality and access of health care for women, as well as the aforementioned access to adequate food and clean water. Rates improve with better food security, maternal care before, during, and after the pregnancy, access to skilled midwives or doctors because it allows women to be healthier through the critical periods of pregnancy. Sex education and contraceptives also help reduce the maternal mortality rate because it reduces the number of pre-teen pregnancies and allows mothers to control the spacing between each pregnancy.

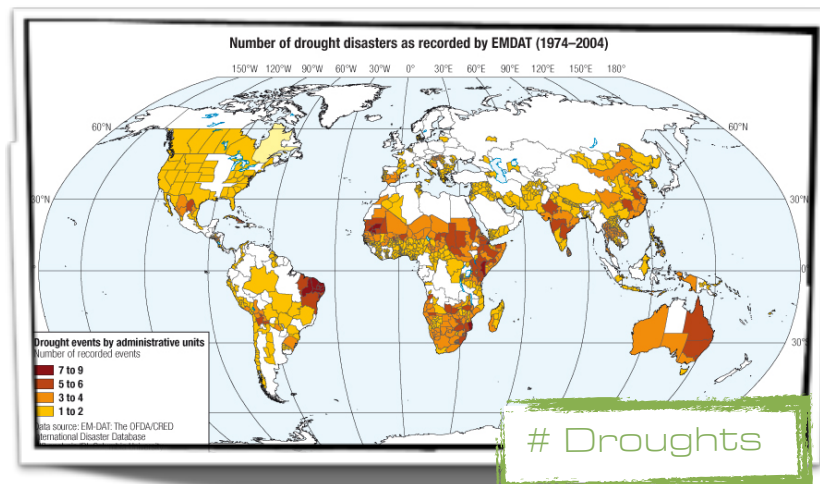


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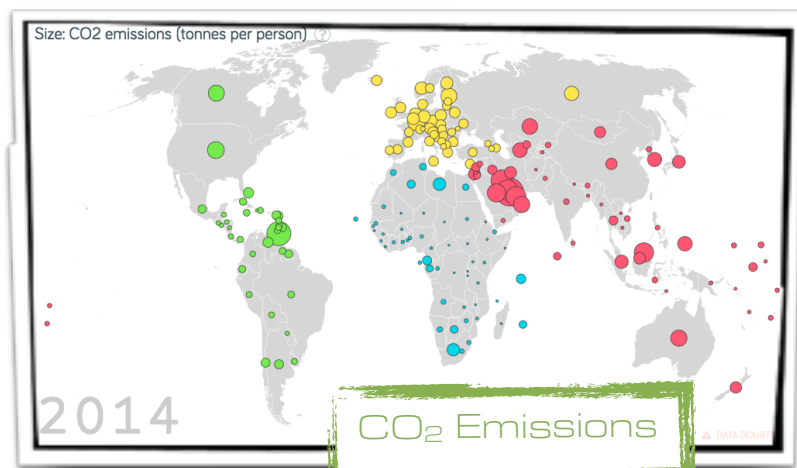
ENVIRONMENT INDICATORS

Humanity engages in a delicate dance with the environment. On one side, the environment directly impacts human settlements through its natural features, climates, and natural disasters. On the other, humanity directly affects the environment through its resource consumption and pollution. Environmental indicators measure the impact each side is having upon the other:

- **Drought & Natural Disaster Maps.** Measures the number droughts and natural disasters. The greater the number of droughts and disasters, the more at risk the human population. Droughts directly impact food security and access to clean water. Droughts also have a ripple effect across the entire health indicator spectrum (life expectancy, infant mortality rates, etc).
- **Climate Change Risk.** Measures how vulnerable the society is to climate change factors (rising oceans, loss of agricultural farm land, increase in severe weather). The higher the score, the more vulnerable the population.
- **Deforestation.** Deforestation measures the rate at which trees are being cut down over a period of time and has a strong correlation with rate of development. Countries making a strong push to develop rapidly have the highest rates of deforestation. The least developed and most developed countries have the lowest rates of deforestation.
- **CO₂ Emissions.** CO₂ Emissions measure the rate of fossil fuel consumption along with the amount of green house gas emissions. CO₂ Emissions are tied to increased transportation and industrialization, both of which use fossil fuels and coal powered energy. The higher the score, the greater the amount of CO₂ emissions - which is generally considered a positive measurement of economic industrial development but a negative measurement of human environmental impact.



D. Guha-Sapir - EM-DAT: The OFDA/CRED International Disaster Database - www.emdat.be - Université Catholique de



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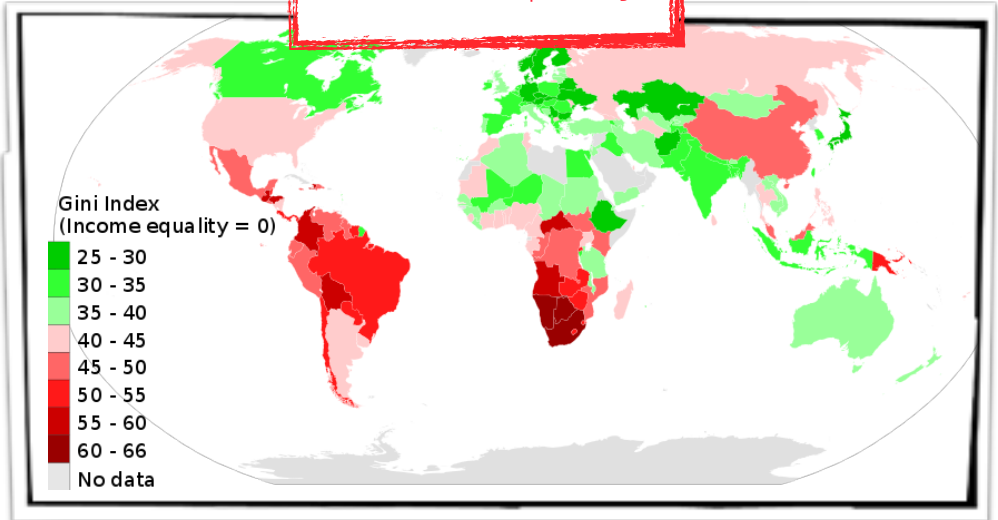
INEQUALITY INDICATOR

The Global Inequality Index (GINI)

is an indicator used to measure the wealth gap between the rich and poor within a country. The perfect score is 0, meaning economic equality: the richest and poorest make nearly the same amount. 100 is the highest score, meaning there is a tremendous inequality gap. Amongst developed economies, improvement in the inequality index can be achieved through government programs and taxes to “redistribute the wealth.” Equality in the LDC/Periphery is achieved because... well... no one is making money, so there is a small gap between the poor and the not-rich. A measure that is correlated with inequality is the Extreme Poverty index. The Extreme Poverty Index assesses how many citizens live on an income under \$2 per day.

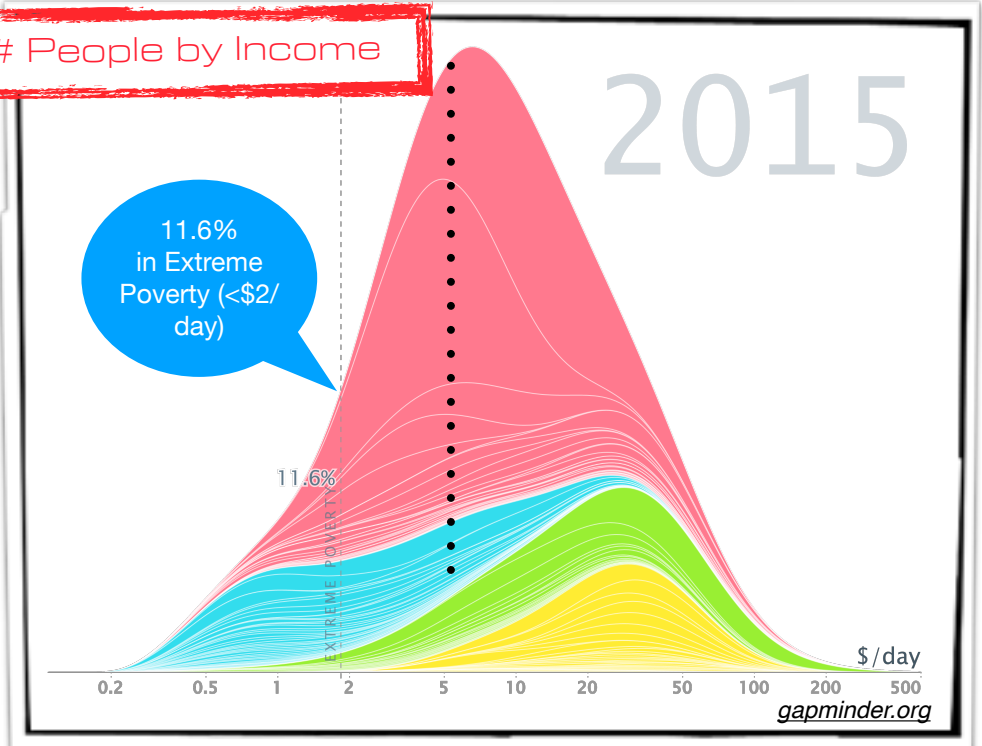


Global Inequality



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People by Income

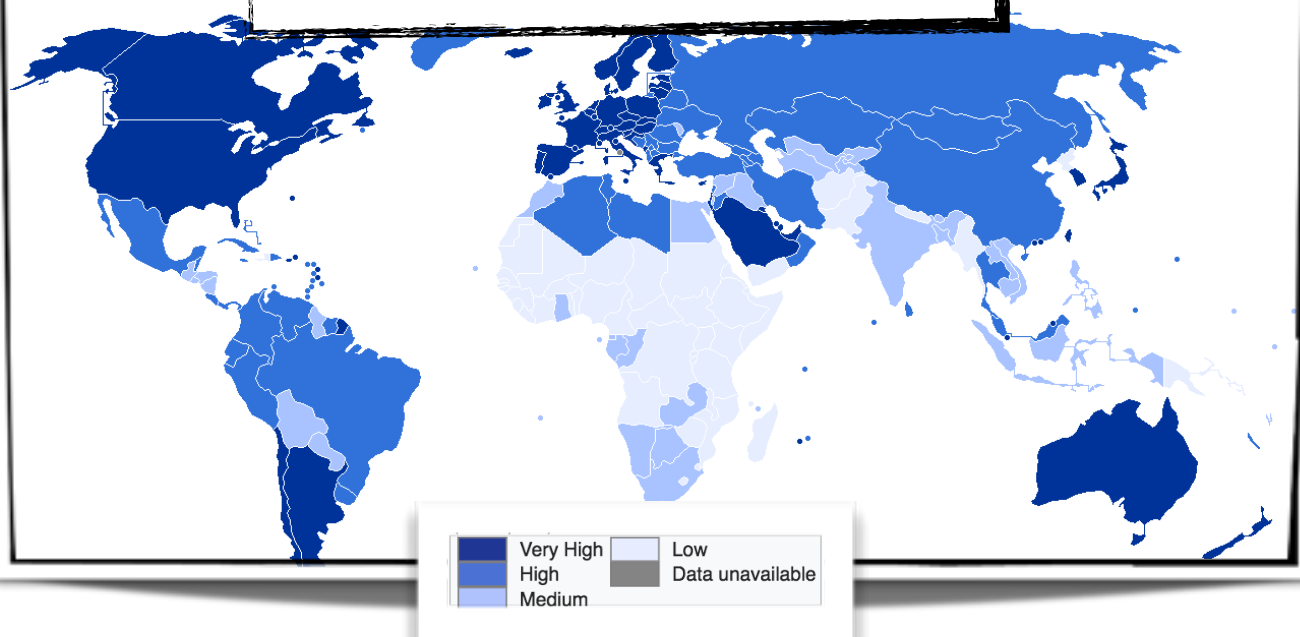


PUTTING IT ALL TOGETHER

With the enormous number of indicators and data, it is easy to become lost as to what it all means and how to develop a plan for creating the Good Life. To attempt to overcome this obstacle, Non-Governmental Organizations (NGOs) have tried to create formulas that merge key indicators together to produce one score that can be used to quickly grade and measure a country's development.

The Human Development Index (HDI) was created by the United Nations Development Programme to produce one composite indicator of overall development. HDI combines the following indicators: Knowledge (expected and actual years in school), Standard of Living (GDP per capita) and Longevity (Life Expectancy). A score of 1.0 is the perfect HDI score, indicating the best quality of life: highly educated, long life expectancy, and lots of money. A score of 0.0 is the lowest HDI score, corresponding with a very low quality of life: no education, short life expectancy, and no money. HDI scores and rankings are published yearly, allowing for change to be measured over time.

Human Development Index (2015)



For the many positive qualities of the HDI measurement, there are substantial criticisms. While long life, knowledge, and standard of living are all important, they do not paint the entire picture of a society. Indeed, these ideas are mainly held to be important in Western Countries (USA/Europe) - who generate the greatest amount of wealth in the world while holding the most important positions of power within the United Nations. To the Core economies, access to food and secure housing are so abundant the leaders easily forget they are not guaranteed to all people. To the core, the question is not IF a person has housing or food but the quality and quantity of the housing and food. This becomes even more apparent when examining what is meant by "Decent Standard of Living." Only one indicator is used to measure "standard of living": Gross National Income (GNI) per capita - the average income per person. While individual wealth is important, it does not tell the entire story about the quality of life in a society. What about other measurements that are considered necessary for a quality life: Quantity and nutritional variety of food? Access to clean drinking water? Type of farming tools? Vehicles for travel? Type of flooring in the house? Access to sanitation? The size of the gap between rich and poor citizens of a country? Or the treatment of women within the country? To people living in a position of privilege, it is easy to forget the basic necessities are not automatically provided for all people.

In addition, the GNI per capita can be distorted, painting an inaccurate picture of the quality of life in the society. To illustrate:

- The Dogwood Society has a nominal GNI (or total wealth) is \$8.5 billion, and has a total population of 20,000 people. This would make the GNI per capita (wealth per person) \$425,000 a year or \$1,643 per day. The Dogwoods would be one of the richest societies per capita in the world.
- However, if one rich person made \$8.3 billion dollars, that means the other 19,999 would combine to make \$2 billion. This means that when the one rich person is removed, the rest of the population in Dogwood ACTUALLY makes \$10,000 a year or \$27 per day. That is a very different picture of the quality of life in the Dogwood society than the original raw GNI per capita score.

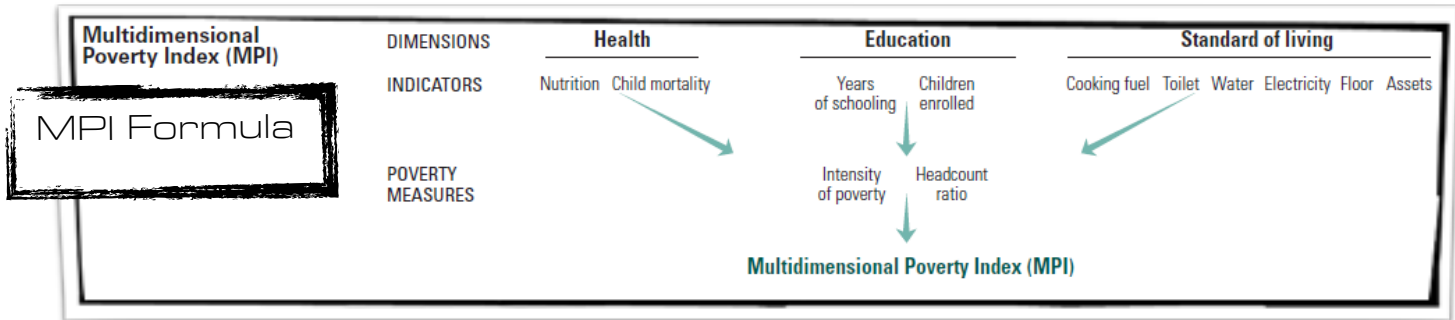
Rank	Highest	Lowest
1	Norway	Cent. Africa Republic
2	Australia	Niger
3	Switzerland	Chad
4	Germany	Burkina Faso
5	Denmark	Burundi
6	Singapore	Guinea
7	Netherlands	South Sudan
8	Ireland	Mozambique
9	Iceland	Sierra Leone
10	Canada	Eritrea

Neighbors in Thailand



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This brings up an important distinction: economic wealth and economic growth are not the same as development. An economy can grow and make more money without creating a change in the quality of life of its citizens. The top 5% most wealthy can see massive spikes in their income, drastically increasing the GNI, while the bottom 70% live in the same conditions as before. This is not to say economic growth and income are not important; wealth is a fundamental component of most aspects in a modern society and without wealth or income a society would collapse. However, wealth cannot be used as the ONLY way of measuring the standard of living. Like with most things money-related: money is not THE answer, but money is apart of any answer and must be understood in that context.



Multidimensional Poverty Index (MPI). Based on the criticisms of HDI, the University of Oxford in England created the MPI to include a wider range of indicators to evaluate a society. Similar to HDI, the MPI is built around the pillars of health, education, and living standards. The MPI scoring system produces a result out of 100 points. The higher the MPI score, the greater the poverty. The lower the MPI score, the lesser the poverty. However, the MPI distinguishes itself by the amount of detail it takes into account when measuring quality of life. In particular, it is useful to examine the Living Standard category. Where the HDI only included the GDP per capita, the MPI looks at the realities of daily life of common people in the region to attempt to determine the exact development barriers a society needs to overcome:

- **Cooking fuel** - Do they use electricity, natural gas, coal, wood... or animal scat?
- **Sanitation** - Do they have a system of toilets and pipes with waste treatment facilities... or do they dig a hole in the ground?
- **Assets** - Items with have real-world value. Do they have a savings account along with a stock portfolio... or is it a pig or cow?
- **Electricity** - The ability to power high-tech machines or just enough to turn on one flickering lightbulb?

Unfortunately, no scoring system is perfect. While the MPI gives a clearer picture of a region's poverty, the process of gathering the data is long and expensive. Workers need to gain quantitative data by going house to house in the region, compiling information through face-to-face interviews, and conducting field surveys.



APPLICATION #6 Compare the quality of life for people living below \$100 per month (less than \$3 per day). Even though these people do not live in the same parts of the world, what are common traits in their experience? Compare the people living with incomes above \$1000/month (\$33 + per day). What are common traits?