Summer task – Year 12

4.2.6.5 Economic growth and development

Content	Additional information
• The difference between growth and development. • The main characteristics of less-developed economies. • The main indicators of development, including the Human Development Index (HDI). • Factors that affect growth and development, such as: investment, education and training. • Barriers to growth and development, such as: corruption, institutional factors, poor infrastructure, inadequate human capital, lack of property rights. • Policies that might be adopted to promote economic growth and development. • The role of aid and trade in promoting growth and development.	Students should appreciate the links between this and other parts of the specification, such as: globalisation, trade, the determinants of economic growth and inequality. Students should be able to compare market-based strategies and interventionist strategies for promoting growth and development.

Levels of economic prosperity differ dramatically between and within nations. Development economics has emerged as a separate discipline since the end of the second world war and seeks to identify barriers to development and policies to encourage development. In development economics, as in other branches of the subject, a diversity of views prevails.

Classification of development

Broadly speaking in the world there are three groups of countries:

1. A small group of rich, industrialised countries are known as developed or first world countries. Most of these countries are found in the west of the northern hemisphere (exceptions include Australia, New Zealand, South Korea and Japan). Roughly 1 billion of the world's population live in these **high-income** countries.
2. Former communist bloc countries found in Eastern Europe are termed 'transitional economies' as they are still in the process of changing from planned economies to more market-based systems. They are sometimes, but infrequently, called 'second world countries' and are usually classed as having **'upper middle income'**.
3. Many poorer countries classed as 'developing', 'less economically developed', or 'third world'. Most of these countries are found in the southern hemisphere.

Whilst first world countries are quite similar, stark contrasts exist between developing nations. Due to this variety developing nations are often placed into one of two sub-categories: middle income (which is sub-divided into high middle income or low middle income) or low income. Some of the middle-income nations are referred to as 'emerging economies' or 'newly industrialised countries' due to their rapid economic growth and integration into the global economy. Examples include Mexico, Malaysia, Philippines, Vietnam, and Indonesia, all of whom have developed western style economies. These economies seem to be on the right path to improving the prosperity of their inhabitants.

Low income countries are usually the ones most often considered by development economics; approximately 1 billion people live in these countries.

As Professor Paul Collier writes in the preface to his book 'The Bottom Billion':

"The countries at the bottom are distinctive not just in being the poorest but also in having failed to grow. They are not following the development path of other countries; they are adrift."

In other words, whilst many middle-income countries are making progress towards economic development many low-income countries aren't.

The differences between economic growth and economic development

1. What is 'absolute poverty'?
2. What is 'relative poverty'?

In its first 'World Development Report' (1990), The World Bank introduce the $1 a day measure of absolute poverty.

3. Why was the US $ used as the currency?
4. The exchange rate used to convert $1 to a nation's own currency was the PPP exchange rate, (purchasing power parity), not the nominal exchange rate. Explain what the PPP rate is and why it is used.

   The measure of absolute poverty was increased first to $1.25 a day and is now $1.90. In 2015 the World Bank estimated that 10% of the world's population lived on less than $1.90 a day. This equated to 734 million people, down from 1.9 billion in 1990, (36% of the world's population).

Low income countries 2018 (World Bank Database)

Code	Country	Region	GDP (2010 US$)
AFG	Afghanistan	South Asia	20,958,745,169
BDI	Burundi	Sub-Saharan Africa	13,912,028,869
BEN	Benin	Sub-Saharan Africa	14,063,805,709
BFA	Burkina Faso	Sub-Saharan Africa	23,55,816,908
CAF	Central African Republic	Sub-Saharan Africa	12,588,712,364
COD	Congo, Dem. Rep.	Sub-Saharan Africa	1,768,534,844
ERI	Eritrea	Sub-Saharan Africa	35,202,556,672
ETH	Ethiopia	Sub-Saharan Africa	..
GIN	Guinea	Sub-Saharan Africa	62,291,386,041
GMB	Gambia, The	Sub-Saharan Africa	1,793,011,214
GNB	Guinea-Bissau	Sub-Saharan Africa	11,133,508,515
HTI	Haiti	Latin America & Caribbean	1,165,969,815
LBR	Liberia	Sub-Saharan Africa	8,123,218,871
TJK	Tajikistan	Europe & Central Asia	..
MDG	Madagascar	Sub-Saharan Africa	2,608,374,062
MLI	Mali	Sub-Saharan Africa	14,839,783,342
MOZ	Mozambique	Sub-Saharan Africa	17,445,070,421
MWI	Malawi	Sub-Saharan Africa	9,375,631,601
NER	Niger	Sub-Saharan Africa	3,617,187,416
NPL	Nepal	South Asia	..
PRK	Korea, Dem. People's Rep.	East Asia & Pacific	9,765,396,816
RWA	Rwanda	Sub-Saharan Africa	30,336,929,771
SLE	Sierra Leone	Sub-Saharan Africa	19,035,567,940
SOM	Somalia	Sub-Saharan Africa	5,339,750,595

SSD	South Sudan	Sub-Saharan Africa	52,444,869,125
SYR	Syrian Arab Republic	Middle East & North Africa	..
TCD	Chad	Sub-Saharan Africa	..
TGO	Togo	Sub-Saharan Africa	20,958,745,169
TZA	Tanzania	Sub-Saharan Africa	13,912,028,869
UGA	Uganda	Sub-Saharan Africa	14,063,805,709
YEM	Yemen, Rep.	Middle East & North Africa	2,355,816,908
GBR	Great Britain	Europe	2,880,610,000,000
USA	United States of America	North America	17,856,500,000,000

5. Why do some of the countries listed have no data?
6. Identify significant points in the data presented.
7. Why have I chosen to use 2010 US$ as the currency?

GDP is one of the simplest (and some would say bluntest) way of comparing development. Generally, the higher a country's national income, the more developed it is thought to be. This use of income as a proxy for development is fraught with difficulty so several adjustments might be made to render it a more appropriate indicator:

- **Calculate *per capita GDP***: assume two countries have an identical GDP of £2tn. Country 1 has a population of 100 million whereas the Country 2 has a population of 50 million. All things being equal, residents of the Country 2 will have an income per person (*per capita*) double that of Country 1, (£20,000 per person compared to £40,000). With twice as much income we would expect residents of Country 2 to enjoy a higher standard of living than those of Country 1.
- **Consider the distribution of income**: the £40,000 figure is an average found by dividing GDP by the population. The reality in all countries is that income is distributed unequally. If Country 2 has a Gini coefficient of 0.8 it means that national income is owned by a relatively small number of its citizens. If country 1's Gini coefficient is 0.05 then its national income is shared more equally amongst its larger population. It might well be the case under these circumstances that the average inhabitant of Country 1 receives a higher income than the average inhabitant of Country 2.
- **Take account of differences in prices**: Country 2's inhabitants are twice as rich as Country 1's if we consider just the numbers (nominal values). If prices in Country 1 are half those of Country 2 then in **real terms** its inhabitants are equally well off as the inhabitants of Country 2. Residents in both countries have the same purchasing power.
- **Take account of exchange rates**: only one of the countries in the table has the US$ as its official currency. For the rest their domestic currencies have been converted to the $. Chad's currency is the Central African CFA Franc. The choice of exchange rate will determine Chad's GDP in US $s. It is desirable to use PPP exchange rates rather than current market rates.
- **Take account of differences between countries:** if Country 2 is three times the size of Country 1 then transporting goods will be much more expensive. Living standards will be lowered in Country 2 because of the size of the country. Furthermore, assume Country 1 is warm for 11 months of the year whereas Country 2 is freezing for 6 months of the year. We would expect residents of Country 2 to spend a higher proportion of their incomes keeping warm. This expenditure doesn't necessarily make them feel any better off than residents of Country 1. Additionally, if workers in Country 2 work 3 times longer each week than workers

in Country 1 then although they earn double the income, they will enjoy much less free time. Working long hours can be lucrative financially but doesn't necessarily lead to a higher standard of living. Country 2 might also produce higher levels of airborne pollution or be less democratic than Country 1. Both these factors will make Country 2 a less attractive place to live.

- **Take account of the level of unreported income:** in Country 1 residents operate on a more self-sufficient basis. In other words, they grow more of their own food and keep livestock. This activity increases standards of living but will go unreported; official GDP statistics will not reflect this home production exaggerating the perceived differences between the countries.
- **Take account of the hidden economy:** the informal economy in Country 1 could be double that of Country 2 meaning that the relative levels of GDP aren't all that different.

GDP per capita – constant 2010 US$ 2017-18

Country Name	2017	2018
Afghanistan	571.54	563.83
Benin	1166.76	1211.32
Burkina Faso	685.88	712.04
Burundi	214.14	210.80
Central African Republic	370.75	379.00
Chad	816.74	813.34
Congo, Dem. Rep.	408.92	418.74
Eritrea	..	..
Ethiopia	548.12	570.31
Gambia, The	760.12	786.37
Guinea	869.03	896.83
Guinea-Bissau	614.44	622.08
Haiti	728.85	730.30
Korea, Dem. People's Rep.	..	..
Liberia	548.01	541.27
Madagascar	481.38	490.10
Malawi	512.65	516.75
Mali	764.17	777.86
Mozambique	588.74	591.44
Nepal	779.20	817.45
Niger	393.66	403.49
Rwanda	779.52	824.52
Sierra Leone	466.95	472.83
Somalia	..	..
South Sudan	..	..
Syrian Arab Republic	..	..
Tajikistan	1024.86	1073.02
Tanzania	937.30	959.35
Togo	661.15	676.85

Uganda	694.29	710.08
Yemen, Rep.	702.86	667.95

8. Using both tables, calculate the population of Tanzania in 2018. Show your workings.
9. The population of the USA 332,639,102 in 2018 (CIA Factbook). Calculate the USA's GDP per capita in 2018.
10. The population of the UK 65,761,117in 2018 (CIA Factbook). Calculate the UK's GDP per capita in 2018.
11. Pick out any points of interest from the table above.

GNI

Whilst GDP is one way of categorising countries according to their income levels, a more often used measure of national income is GNI, (Gross National Income).

12. How is GDP converted to GNI?
13. Why is GNI used more often in development economics?
14. The World Bank classifies countries as low income if their GNI per capita falls into which range?

GNI 2018

Country Name	GNI (constant 2010 US$)	GNI per capita (constant 2010 US$)	GNI growth (annual %)
Benin	13769014350.93	1198.86	6.79
Burkina Faso	13980694081.85	707.83	10.03
Burundi	2361524524.67	211.31	2.02
Congo, Dem. Rep.	33920643177.68	403.49	4.96
Ethiopia	..		6.70
Gambia, The	1756841141.92	770.51	6.65
Guinea	10958094936.74	882.70	5.03
Guinea-Bissau	1164134294.31	621.10	3.4
Haiti	8172039873.75	734.69	1.35
Liberia	2298051925.31	476.88	-1.73
Madagascar	12505554306.74	476.18	4.53
Mali	14290104979.96	749.05	5.82
Mozambique	17069917730.90	578.72	4.55
Nepal	23149021042.86	824.16	
Niger	8854419940.68	394.53	6.44
Rwanda	9917269590.95	806.15	8.72
Togo	5360906184.94	679.53	5.20

Uganda	29412139582.33	688.44	5.80

15. What do the tables (all three) suggest about Rwanda?
16. What do they suggest about Liberia?

Economic growth refers to an increase in the national income of a country. In economic theory it is shown by a shift outward of the PPF and / or a move rightwards of the LRAS curve. Economic growth means a country is becoming richer.

There are two broad reasons a country experiences economic growth:

- An increase in the quantity of the factors of production
- An increase in the quality of the factors of production

17. Give an example of each, explaining why it will lead to economic growth.

Economic development is said to be occurring when there is an improvement in citizens' quality of life. The term 'quality of life' is quite subjective meaning that there are various definitions of the term depending on where you look.

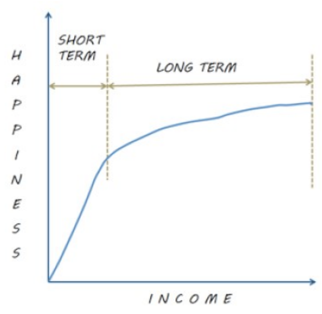
One measure of 'quality of life' is the United Nation's Human Development Index (HDI).

18. Research the HDI – what does it measure? Which countries are ranked at the top, which at the bottom? Are there any surprises? What does the HDI tell us about the relationship between economic growth and economic development?
19. Are there any countries in the world whose HDI ranking is higher than their GNI per capita ranking?

Another measure of 'quality of life' is provided by the 'World Happiness Report' produced on behalf of the Sustainable Developments Solutions Network by a panel of experts.

20. Which is the happiest country in 2020? Which is the least happy? Why?
21. Is the report likely to be acted upon?
22. These articles are interesting from the point of view of the limitations of equating quality of life with measures of national income:
    a. https://www.theguardian.com/society/2019/aug/28/childhood-happiness-lowest-level-in-decade-says-report
    b. https://www.theguardian.com/business/2018/dec/03/gdp-wellbeing-health-education-environment-joseph-stiglitz
    c. https://www.theguardian.com/commentisfree/2019/nov/24/metrics-gdp-economic-performance-social-progress

Easterlin paradox



A paradox refers to something that appears to contradict the conventional wisdom. The commonly accepted relationship between GDP and happiness would be that as GDP rises so does happiness. The Easterlin paradox suggests:

- In society rich people tend to be happier than poor people.
- Rich societies tend not to be **significantly** happier than poor societies.
- As countries get richer, they **don't** get happier.

23. Should low income countries abandon targets to increase GDP given the Easterlin paradox?

Similarities (and differences) between developing countries

The term 'developing country' is used to describe such a wide variety of countries that it is difficult to list a series of characteristics which definitively identifies them.

Here follow 7 similarities: this list shouldn't be considered exhaustive, nor should it be interpreted to mean that every developing country exhibits all 7 characteristics.

- Low living standards – this catch all term includes malnutrition, poor health and short life spans, absolute poverty, high levels of inequality in the distribution of income, low per capita income. Infrastructure indicators appear under this heading and include access to clean (safe) water and sanitation. Living standards are also heavily impacted by disease: regions where malaria and HIV are prevalent will experience lower living standard
- High population growth
- A narrowly focused economy and reliance on primary sector exports such as commodities and unprocessed agricultural products
- Infrastructure weakness (transport and communication)
- Ineffective institutions, poorly defined property rights leading to corruption
- Low productivity of factors of production due to a lack of access to education and physical capital
- High levels of unemployment

Differences

- Size (population and land area)
- Natural resources endowment
- Colonial history
- Location
- Age profile of population
- Political stability

Barriers to growth

- Colonialism and its aftermath (the conflict trap)
- Savings gap – Harrod Domar model
- Capital flight
- Declining **terms of trade** as world price of commodities falls
- The natural resource curse
- High levels of corruption
- The 'brain drain'
- Location – landlocked, poor neighbours
- Geography – deserts, mountains, lack of navigable rivers, lack of deep-water harbours
- Human capital gaps
- Infrastructure gaps
- Bad governance – lack of property rights, weak, ineffectual institutions, authoritarian leader
- Diseases such as malaria

24. For each of these bullet points explain why the item is a barrier to development and then detail policies that could be implemented to overcome the barrier.

The role of aid

Why are poor countries poor? The argument for aid.

Jeffrey Sachs, adviser to the United Nations, director of the Earth Institute at Columbia University in New York City has an answer to this question: Poor countries are poor because they are hot, infertile, malaria infested, often landlocked; this makes it hard for them to be productive without an initial large investment to help them deal with these endemic problems. But they cannot pay for the investments precisely because they are poor—they are in what economists call a "poverty trap."

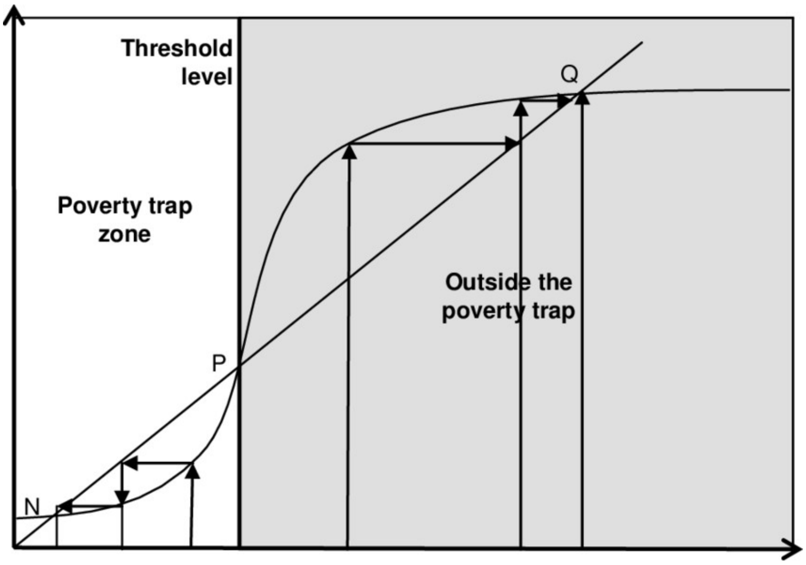


Figure 1: *the poverty trap*

This diagram shows one view on the role of aid. The X-axis shows 'Income today' whilst the Y-axis shows 'Income tomorrow' (not literally the day after today – tomorrow means 'at some point in the near future'). The 45º line links points where income today equals income tomorrow. Looking more carefully at the S-curve, we can see that between N and P the curve lies below the line of equality. This means that income today is higher than income tomorrow. If the income you have today is higher than the income you will receive tomorrow, then you are said to be stuck in a poverty trap. Income is lower in the future because poor families are unable to invest today in those things that will make them more productive in the future.

Another way of stating this predicament is simply this: poor countries are poor because they are poor. Poor people do not have enough money to spend on fertilizer, mosquito nets, medicine, education for children and food. Due to these constraints people do not have the energy to work harder, they take ill more often, and experience falling crop yields which results in poorer outcomes. This vicious circle means that people ultimately end up at point N on the diagram.

Mosquito nets are a case in point. A net treated with insecticide is priced at about $10, including training in its correct use. Because malaria is contagious, if Peter sleeps under a net his family and friends are less likely to catch the disease. Although the $10 seems a negligible amount of money for us it represents a much more significant sum for those living in poverty. The WHO estimated that 272,000 children died of malaria in 2019, (67% of total deaths). Not having a mosquito net increases the chances of a child contracting malaria which means (assuming they survive) they will suffer 'malaria episodes' throughout their lives. The episodes are characterised by flu like symptoms which typically last 2 weeks. This disease impacts an individual's ability to work and generate income. Malaria also leads to low birth weight and increase incidence of anaemia, both of which have economic consequences. If a family's income is low, they won't be able to afford a treated net today which means that they might generate less income tomorrow.

According to Sachs, until something is done about these problems, neither free markets nor democracy will be of much help. Foreign aid is therefore key: It can kick-start a virtuous cycle by helping poor countries invest in these critical areas and make them more productive. The resulting higher incomes will generate further investments; the beneficial spiral will continue. In his best-selling 2005 book, 'The End of Poverty', Sachs argues that if the rich world had committed $195 billion in foreign aid per year between 2005 and 2025, poverty could have been eliminated.

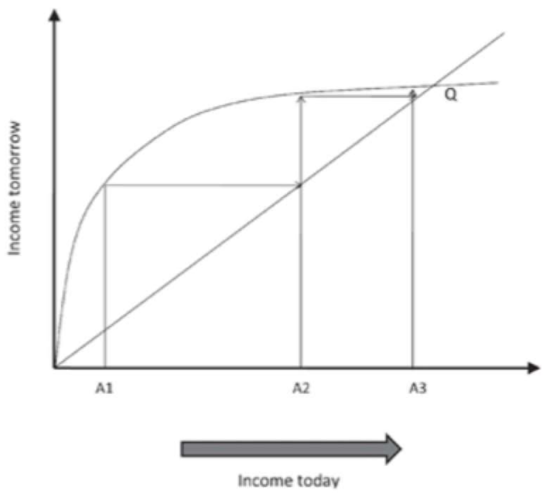
25. Draw a diagram to show why, when left to the market, there might be underconsumption of mosquito nets.
26. Explain your diagram.
27. The Bill Gates Foundation is committed to wiping malaria from the face of the earth. Find out how it proposes to achieve this challenging target.

Arguments against aid

William Easterly has become one of the most influential anti-aid public figures, following the publication of two books, 'The Elusive Quest for Growth' and 'The White Man's Burden'. Dambisa Moyo, an economist who previously worked at Goldman Sachs and at the World Bank, has joined her voice to Easterly's with her recent book, Dead Aid.

Both argue that aid does more bad than good: It prevents people from searching for their own solutions, while corrupting and undermining local institutions and creating a self-perpetuating lobby of aid agencies. The best bet for poor countries is to rely on one simple idea: When markets are free and the incentives are right, people can find ways to solve their problems. They do not need handouts, from foreigners or from their own governments. In this sense, the aid pessimists are quite optimistic about the way the world works. According to Easterly, there are no such things as poverty traps.

Figure 2: *The Inverted L Shape: No Poverty Trap*



The diagram to the left shows what the world looks like to economists such as William Easterly. The curve goes up fastest at the beginning, then slower and slower. There is no poverty trap in this world: Because the poorest people earn more than the income they started with, they become richer over time, until eventually their incomes stop growing (the arrows going from A1 to A2 to A3 depict a possible trajectory). This income may not be very high, but the point is that there is relatively little we need or can do to help the poor. A onetime gift in this world (say, giving someone enough income that, instead of starting with A1 today, he or she start with A2) will not boost anyone's income permanently. At best, it can just help them move up a little bit faster, but it cannot change where they are eventually headed.

In 'The White Man's Burden' Easterly is highly critical of the 'top down' approach to development which often leads to inappropriate projects destined to failure. He points to the success of countries who have developed without aid (India, South Korea, Taiwan, Vietnam for example) and those who have received significant aid over the years but are still stuck in low income (most of the countries in the first table).

To Easterly, the efficient functioning of markets is by far the best way to combat poverty.

In Malawi, for example, mosquito nets are sold for fifty cents each to poor mothers through antenatal clinics in rural areas. The nurses get nine cents for each sale, which provides a tangible incentive for them to tout the nets to mothers and to keep them in stock. The non-profit organisation also sells nets for five dollars to richer Malawians, which subsidizes the fifty-cent sales. This model for distributing the nets has been shown to be significantly more effective than simply giving them away. Nearly everyone who buys a net uses it, whereas as many as 70 percent of the recipients who receive a free net do not bother to use it.

Easterly points to a World Bank initiative which assesses how easy it is to do business in countries around the world. The rank order uses data on the ease of starting an enterprise, the ease of getting a construction permit, of getting electricity, getting credit, resolving contract disputes, etc. In 2019 New Zealand was ranked 1st: it was the easiest place to do business in the world, (the UK was 9th and the USA 7th). This following table lists the 30 most difficult countries to do business in the world in 2019:

Country	**Rank**
Comoros	160
Madagascar	161
Suriname	162
Sierra Leone	163
Kiribati	164
Myanmar	165
Burundi	166
Cameroon	167
Bangladesh	168
Gabon	169
São Tomé and Príncipe	170
Sudan	171
Iraq	172
Afghanistan	173
Guinea-Bissau	174
Liberia	175
Syrian Arab Republic	176
Angola	177
Equatorial Guinea	178
Haiti	179
Congo, Rep.	180
Timor-Leste	181
Chad	182
Congo, Dem. Rep.	183
Central African Republic	184
South Sudan	185
Libya	186
Yemen, Rep.	187
Venezuela, RB	188
Eritrea	189
Somalia	190

28. What do you notice about this list?
29. What does it suggest about the best way to increase affluence in the countries listed?
30. "… more than 70% of the recipients who receive a free net do not bother to use it." Explain why this might be the case using behavioural economics in the answer.
31. Why do people use nets they have paid for?

As far as Easterly and his supporters are concerned there is a very direct relationship between per capita income and the ease of doing business. Creating conditions in which enterprises can start and thrive is a key element of market-based approaches to development.

32. Explain this last paragraph.

In conclusion

As Adam Smith put it more succinctly in his lecture notes more than two hundred years ago, “[L]ittle else is required to carry a state to the highest degree of affluence from the lowest barbarism but peace, easy taxes, and a tolerable administration of justice; all the rest being brought about by the natural course of things”.

Easterly suggest that aid is often used to reward friendly nations and can sometimes be ‘tied’. It is not uncommon for the money sent to countries to disappear into the private offshore accounts of the ruling elite, doing little good for the people who really need it.

The EU is the biggest exporter of food to Africa. The Common Agricultural policy guarantees a minimum price to farmers which leads to overproduction. This is then sold at subsidised prices to African nations. In addition, the EU imposes tariffs on imports of some agricultural produce meaning African producers are punished twice: they struggle compete domestically and find it difficult to export produce. Market forces if allowed to function without impediment would benefit exporting African nations.

The aid question is contentious, provoking strong feelings in advocates and critics alike; whatever these differences in opinion, everyone working in the field of development economics would like to see reduced levels of poverty.

As Bannerjee and Dufflo argue in their book “Poor Economics” (from which much of this section is adapted), economists and politicians tend to want sweeping answers to the question of eradicating poverty. Unfortunately, each poor country is poor because of a unique set of circumstances and thus one-size-fits-all solutions are unlikely to work. For some countries foreign aid has been important in kick starting the process of development; in others it hasn’t worked. That isn’t the same as saying that aid always succeeds or always fails.

Extension work

Rwanda and Kenya are often cited as two countries making rapid strides towards economic development. Whilst true, they are doing it in very different ways. Research the two countries and write an overview of their journeys to ending poverty.