RAFFLES INSTITUTION YEAR 6 GENERAL PAPER			
STUDENTS' INFORMATION PACKAGE 2018			
Unit: Global Issues1. Introduction2. Enduring Understandings & Essential Questions3. Related Past Year Examination Questions: Cambridge and RI	2 3 3		
Articles:			
The State of the World Today			
 An Introduction to Globalisation The Changing Nature of Globalisation in our Hyperconnected, Knowledge Intensive Economy 	9 14		
 Global Risks 2018: Fractures, Fears and Failures The Human Security Dimension of China's Belt and Road Initiative 	17 22		
Sustainability			
5a. Sustainable Development Goals: All you Need to Know 5b. If Everyone Gets Electricity, Will the Planet Survive?	27 29		
Climate Change 6a. Background Knowledge for Why COP21 Was a Milestone for International			
Collaboration and Global Climate Change	32		
6b. The COP24 Climate Talks Will Offer Little Progress	35		
7. Catching up with China, India and the Environment	37		
World Poverty and Inequality			
8a. Factsheet on Faces of Poverty	41		
8b. Combatting Global Poverty with Education: Two Excerpts	42		
8c. (i). Why Foreign Aid is Hurting Africa	46		
(ii). The Case for Aid	50		
8d. Globalisation, Technology and Inequality	55		
Globalisation and World Migration			
9a. Immigrants are the Key to a Knowledge Economy	57		
9b. Immigration Fulfils the Promise of Globalisation	59		
War and Conflict 10. Civil War Trends and the Changing Nature of Armed Conflict	62		
Global Health Threats			
11. Peer into the post-apocalyptic future	65		

1. Introduction

Global Issues aims to give a broad overview of recent issues that have significance on a global scale. A quick survey of international news media will reveal the prominence of issues such as globalisation, climate change, population growth, poverty and migration due to their wideranging global impact that will likely endure for many years to come. Given the sheer breadth of these issues, Global Issues has adopted an approach that focuses on facilitating a quick grasp of fundamental concepts needed for active participation in class discussions and critical evaluation of issues. It is hoped that the factsheets/infosheets and the views and perspectives articulated by notable individuals will give students a broad framework within which they can appreciate the dynamic development of global issues.

What this package is:

This package is meant to supplement your learning in class by spurring independent thinking and facilitating active discussion on questions and key issues. It is also intended for self-study to gain content knowledge, as well as reflection upon key issues raised. The articles in this package are selected and customised to be of the standard of comprehension expected of an A-level candidate. Related examination questions are highlighted beneath each article—these are meant to guide your thinking and focus your learning. For students interested in going further, links and suggested readings are provided where appropriate. For students requiring background information, particularly with regards to specific countries, additional links are also provided beneath the appropriate articles.

What this package is not:

This package is NOT an exercise in memory and regurgitation, nor is it a "model answer". General Paper is not about thoughtless memorisation of facts and/or essay scaffolds. It is about close reading of sources, critical analysis of issues raised, and the formation and clear expression of your own logically sound opinions, which are substantiated by factual evidence.

Please note that American spelling	have been retained for som	e articles as they are by
American writers or from American	publications.	

2. Enduring Understandings & Essential Questions

Enduring Understandings: What will students understand as a result of this unit?

- 1. Globalisation is a multi-faceted phenomenon: we see this increased mobility, interconnectivity and exchange economically, politically and socially.
- 2. The particular circumstances of different countries and individuals have a significant bearing on whether they are on the receiving end of the benefits or detriments of globalisation.

Globalisation has brought about progress in various areas. However, this progress brings tensions and consequences, which governments, international organisations and individuals need to address.

- States use the transnational structures and bodies facilitated by globalisation to advance national interests, but these also create global responsibilities that need to be balanced alongside national interests.
- 4. One key trade-off resulting from globalisation is that between economic growth and environmental sustainability.
- 5. Another consequence is that while globalisation has generated wealth, uneven distribution of both resources and growth has contributed to poverty and inequality.
- 6. There are also social and cultural consequences; the renewed interested in cultural preservation and the rise of xenophobia are symptoms of the backlash against globalisation.
- 7. Additionally, there are geopolitical consequences: the nature of conflict has changed, in line with changing social, political, economic factors and technological advances.
- 8. Moreover, there are consequences for health security: perennial health threats are exacerbated through transnational networks of people and goods.

Essential Questions: What essential questions will this unit focus on?

- 1. What are the geopolitical dynamics of the world today, and what bearing do they have on the position of existing and emerging political powerhouses, as well as countries which have been grappling with deprivation?
- 2. Why are the benefits and detriments of globalisation distributed unevenly and disproportionately?
- 3. What would determine that certain parties benefit from globalisation?
- 4. Is sustainable development attainable, and, if so, what steps should be taken to achieve it?
- 5. To what extent are the forces contributing to poverty and inequality in the world today within human control?

- 6. What principles determine the share of responsibility for different stakeholders in addressing the world's problems?
- 7. What are the different types of help administered in a bid to tackle poverty?
- 8. Why do countries provide foreign aid to other countries?
- 9. Does aid promote economic development?
- 10. Do "we" know better than the poor about what "they" need?
- 11. When aid is particularly associated with weak governance, what measures might be put in place to ensure there is improved access to aid and better accountability?
- 12. Why does migration matter?
- 13. What challenges does migration pose?
- 14. What forces influence, challenge, resist and/or conciliate and mitigate the processes and consequences of migration?

Recommended Reading:

- 1. 50 facts that should change the world by Jessica Williams (2004) [362.9090511 WIL]
- 2. Beyond the Age of Innocence: Rebuilding Trust Between America and the World by Kishore Mahbubani (2005) [327.73 MAH]
- 3. **Bound Together** by Nayan Chanda (2007)
- 4. False Dawn: The Delusions of Global Capitalism by John Gray (2002) [330.122 GRA]
- Journey Into Islam: The Crisis of Globalisation by Akbar Ahmed (2007) [297.09 AHM]
- 6. Globalisation and Its Discontents (2002) and Making Globalisation Work (2006) by Joseph Stiglitz [337 STI]
 - the Nobel Prize-winning economist and former World Banker looks at the flaws of globalisation and suggests ways of making it work for both rich and poor.
- 7. **In Defence of Globalisation** by Jagdish Bhagwati (2007) *response to Stiglitz* [303.482 BHA]
- 8. **One No, Many Yeses: a journey to the heart of the global resistance movement** by Paul Kingsnorth (2004) *informal travelogue* [303.484 KIN]
- 9. The Borderless World (1994) & The End of the Nation State: The Rise of Regional Economies (1996) by Kenichi Ohmae the management guru argues that nations are becoming obsolete from an economic viewpoint [909.82 OHM/ 337.1 OHM]
- 10. **The End of Poverty: Economic Possibilities for Our Time** by Jeffrey Sachs (2005) analysis and guided tour of the world's poorest regions 339.46 SAC]
- 11. The Future of Globalisation: explorations in the light of recent turbulence (ed.) by Ernesto Zedillo (2008) [337 FUR]
- 12. **The Globalisation Myth: Why the Protesters Have Got It Wrong** by Alan Shipman (2002) [338.88 SHI]
- 13. **The Clash of Civilisations and the Remaking of World Order** by Samuel P. Huntington (2002) [909.829 HUN]
- 14. The Lexus and the Olive Tree: Understanding Globalisation (2000) and The World is Flat: A Brief History of the Globalised World in the 21st Century (2005)
 - by Thomas Friedman [337 FRI/ 303.4833 FRI]
- 15. **The New Asian Hemisphere : The Irresistible Shift of Power to the East** by Kishore Mahbubani (2008) [327.5 MAH]

Recommended Viewing:

1. BBC Documentaries: Masters of Money and Why Poverty? (Available on YouTube)

- 2. Illicit: The Dark Trade (364.135 ILL)
- 3. **The Corporation (2003)** (Film is available on YouTube)

4. Related Past Year Examination Questions: Cambridge and RI Global Issues:

- 1. Is harmony possible in a diverse world? (RI Y6 CT2 2017)
- 2. 'In an increasingly uncertain world, there is little point in predicting the future.' Discuss. (RI Y6 Prelim 2017)
- 3. 'If you have not left your borders, you have not learnt much.' How true is this? (RI Y5 CT1 2017)
- 4. 'Migration should be encouraged in today's world.' How far do you agree? (RI Y6 CT1 2017)
- 5. 'Countries experiencing conflict should be left to sort out their own problems.' How far do you agree? (Cambridge 2016)
- 6. Discuss the view that countries should always take in refugees. (RI Y6 CT1 2016)
- 7. 'The use of violence inevitably leads to more problems.' What is your view? (RI Y6 CT1 2016)
- 8. 'The strong do what they want, the weak suffer what they must.' To what extent is this true of the world today? (RI Y6 CT2 2016)
- 9. 'We care for the developed world a the expense of the developing world.' Discuss. (RI Y6 CT2 2016)
- 10. To what extent should the movement of people across borders be restricted in the modern world? (RI Y6 Prelim 2016)
- 11. Examine the extent to which one country's intervention in another country's problems is justified. (RI Y6 Prelim 2016)
- 12. 'No cause is ever worth dying for.' Discuss. (Cambridge 2015)
- 13. How far is it possible for one country to forgive another for its past actions? (Cambridge 2015)
- 14. Should international aid only be given to others during times of economic prosperity? (RI Y6 Prelim 2015)
- 15. Migration creates more problems than it provides solutions. Discuss. (RI Y6 CT2 2015)
- 16. Can the trade in weapons ever be justified? (RI Y6 CT2 2015)
- 17. 'All talk but no action.' Discuss this in relation to global response to acts of aggression today. (RI Y6 CT1 2015)
- 18. 'Migration is a necessity, not an option.' What do you think? (RI Y5 Promo 2015)
- 19. How far should firms be allowed to limit their worker's rights when profits are at stake? (Cambridge 2014)
- 20. How far is it important for people to be aware of current events in countries other than their own? (Cambridge 2014)
- 21. 'Human trafficking can never be abolished.' Discuss. (RI Y6 CT1 2014)
- 22. 'Multiculturalism has failed utterly.' Is this an accurate assessment of societies today? (RI Y6 CT1 2014)
- 23. 'International cooperation has not solved the global problems of today.' Do you agree? (RI Y6 CT2 2014)
- 24. Do you agree that consumerism is harmful to society? (RI Y6 CT1 2014)
- 25. Is there any point in trying to predict future trends? (Cambridge 2013)
- 26. 'The world would be a better place if more political leaders were women.' What is your view? (Cambridge 2013)
- 27. Discuss the claim that in the modern world people should care more about international than national issues. (Cambridge 2013)
- 28. Why should we be concerned with current affairs when most of them will soon be forgotten? (Cambridge 2013)
- 29. With reference to the developments in the world today, to what extent would you agree that the future holds much promise for young people? (RI Y6 CT1 2013)

- 30. 'Globalisation has made us more vulnerable.' To what extent is this true? (RI Y6 CT1 2013)
- 31. Can we ever eliminate terrorism? (RI Y6 CT2 2013)
- 32. How important is it for an individual to be aware of international events and issues? (RI Y6 CT2 2013)
- 33. Is there any value in preserving minority languages in the world? (Cambridge 2012)
- 34. "Developing countries can only benefit from tourism." Discuss. (RI Y5 CT 2012)
- 35. Consider the importance of global trends in your society. (RI Y5 CT 2012)
- 36. To what extent can a world that is increasingly multicultural be stable? (RI Y6 CT2 2012)
- 37. "Global businesses today have lost sight of their moral compass." Do you agree? (RI Y6 CT2 2012)
- 38. "The rise of the East and fall of the West are inevitable." Do you agree? (RI Year 6 CT2 2012)
- 39. Consider the view that globalisation destroys culture. (RI Y5 CT 2011)
- 40. 'The prospect of a global village is a depressing one.' Discuss. (RI Y6 Prelims 2011)
- 41. "Globalisation makes the world a better place." To what extent is this true today? (RI Y6 CT1 2009)
- 42. "The world today needs more than one superpower." Do you agree? (RI Y6 Prelims 2009)
- 43. Does the presence of a foreign power ever help a country with problems? (Cambridge 2008)
- 44. How far do physical features, such as size and location, determine a country's progress? (Cambridge 2008)
- 45. To what extent does the migration of people have a positive effect? (Cambridge 2008)
- 46. How far is it possible to ensure that all producers of food and goods are fairly rewarded? (Cambridge 2008)
- 47. 'Man should love his neighbour as himself.' Is it possible to heed such advice in today's world? (RJC J2 CT1 2008)
- 48. There is no place for nationalism in a globalised world.' To what extent do you agree? (RJC J2 CT2 2008)
- 49. 'In the global race to thrive, it is ultimately science and technology which will determine the winners and losers of globalisation.' Discuss. (RJC J2 CT2 2008)
- 50. How important is it to have a universal language in our increasingly global world? (RJC J1 Promo 2007)
- 51. 'The world would be a better place if everyone spoke the same language.' Do you agree? (RJC J2 CT2 2004 & Cambridge 2006)
- 52. National boundaries make little geographical or economic sense nowadays.' Discuss. (Cambridge 2006)
- 53. To what extent should the State involve itself in the world of business? (Cambridge 2005)
- 54. Examine the claim that the world is too dependent on oil. (Cambridge 2005)
- 55. Can small countries have a significant voice in world affairs? (Cambridge 2004)
- 56. "In the modern world every country is obliged to concern itself with the affairs of other countries." Is this true? (RJC J2 CT1 2004)
- 57. Why study another language when English is so widely used today? (RJC J1 CT1 2004)
- 58. "The Internet as an educational tool is highly overrated." Do you agree? (RJC J2 Prelims 2003)
- 59. Is it realistic for a government to expect its people to be cosmopolitan and yet encourage them to stay rooted to their country? Discuss this with reference to your country. (RJC J2 CT2 2003)
- 60. Do international sporting events serve to promote good relations or merely encourage conflict? (RJC J2 CT1 2003)
- 61. Does the UN have a future? (RJC J1 CT1 2003)
- 62. "In this era of globalisation, politics and politicians are becoming increasingly irrelevant." Discuss. (RJC J1 CT1 2003)
- 63. "Foreign travel is an overrated experience." Do you agree? (RJC J1 CT1 2003)
- 64. Do you think that schools in your country are preparing their students adequately for the future? (RJC J1 Promo 2003)
- 65. 'The prospect of a Third World War is now unthinkable.' Do you agree? (Cambridge 2002)

- 66. What are the desirable qualities of a global citizen? (RJC J2 CT1 2002)
- 67. How far would you agree that immigrants are necessary for a society to be successful today? (RJC J1 Promos 2002)
- 68. Discuss the extent to which global and national interests can be balanced. (Cambridge 2001)

Environment

- 69. Assess the view that attempts to control climate change can never be truly effective. (Cambridge 2017)
- 70. 'All talk and no action.' How accurately does this describe environmental conservation today? (RI Y6 CT1 2017)
- 71. Assess the view that most natural disasters are the result of human activity. (Cambridge 2016)
- 72. 'The greatest obstacle to environment conservations is human apathy.' Discuss. (RI Y6 CT2 2016)
- 73. In times of economic difficulty, should a country still be concerned with environmental conservation? (RI Y6 Prelim 2016)
- 74. Examine the claim that not enough has been done for the environment in your society. (RI Y5 Promo 2016)
- 75. In your society, how well are the demands of the economy and the environment balanced? (Cambridge 2015)
- 76. Should there be any controls over the production of energy when the need for it is so great? (Cambridge 2015)
- 77. 'The developed world should bear the burden of climate change.' Discuss. (RI Y6 Prelim 2015)
- 78. 'Not enough is being done to protect endangered animals.' Do you agree? (RI Y5 CT1 2015)
- 79. Discuss the view that, with an increasing global need for energy, every possible source should be exploited to the full. (Cambridge 2014)
- 80. 'The environment should be the responsibility of the individual, not the government.' Comment. (RI Y6 Prelim 2014)
- 81. How important is it to save plant and animal species which are in danger of extinction? (Cambridge 2013)
- 82. 'Everyone should be involved.' How practical is this approach in tackling environmental issues? (RI Y5 Promo 2013)
- 83. Consider the view that economic growth always brings environmental damage. (RI Y6 CT1 2013)
- 84. "Protecting the environment is a futile pursuit." Discuss (RI Y5 Promo 2012)
- 85. Discuss the view that the environment can only be saved through the efforts of developed nations. (RI Y6 Prelims 2011)
- 86. Are concerns about the need for us to conserve the environment exaggerated? (RI Y5 Promo 2011)
- 87. Should the responsibility for environmental conservation be shouldered solely by developed nations? (RI Y5 CT 2010)
- 88. 'Going green is a luxury only developed countries can afford.' Comment. (RI Y6 CT1 2010)
- 89. How far is modern consumerism a threat to the environment? (RI Y6 Prelims 2010)
- 90. Is it possible to protect the environment when many countries require increasing amounts of energy to progress? (Cambridge 2007)
- 91. 'Too little, too late.' Does this describe our efforts at environmental conservation? (RJC J2 CT1 2008)
- 92. "Environmental conservation is the responsibility of developed nations." To what extent do you agree? (RJC J1 CT 2007)
- 93. How far is recycling the answer to the problem of waste? (Cambridge 2004)

World Poverty and Health

94. 'To what extent is education an effective way to combat poverty?' (RI Y5 CT1 2017)

- 95. 'Eradicating proverty is a battle we have no chance of winning.' Do you agree? (RI Y5 Promo 2016)
- 96. How effectively is public health promoted and managed in your society? (Cambridge 2015)
- 97. 'Disease is the greatest threat facing mankind today.' To what extent do you agree with this statement? (RI Y6 Prelim 2015)
- 98. In times of economic hardship, should a country still be expected to provide financial or material aid to others? (Cambridge 2014)
- 99. 'Make poverty history.' Is this a realistic goal? (RI Y5 CT 2013)
- 100. 'The problem of global food shortage can never be resolved.' Do you agree? (RI Y6 Prelims 2013)
- 101. Consider the view that modern technology is the only answer to world hunger. (RI Y6 Prelims 2012)
- 102. "People who are in poverty have only themselves to blame." Comment (RI Y5 CT 2012)
- 103. It is inevitable for technology to be more responsive to the problems of the rich than the poor. Discuss. (Cambridge 2011)
- 104. How effective are international efforts to ease the problem of global hunger? (Cambridge 2010)
- 105. To what extent can international aid be truly effective? (RI Y6 CT2 2010)
- 106. "Foreign aid is ineffective and wasteful." Is this true? (RI Y6 CT2 2009)
- 107. Is the elimination of global poverty a realistic aim? (Cambridge 2009)
- 108. 'The global health threat is the most serious problem facing the world today.' Do you agree? (RJC J2 Prelims 2008)
- 109. 'Disease is not just an individual concern, but a global one.' What is your view? (Cambridge 2006)
- 110. Are the poor an inevitable feature of any society? (Cambridge 2004)
- 111. 'If people become ill it is largely their own fault.' How far do you agree? (Cambridge 2002)

Human Rights

- 112. How far do you agree that freedom has been destructive for society? (RI Y5 Promo 2016)
- 113. 'Freedom of speech should be a privilege, not an entitlement.' How far do you agree with this statement? (RI Y6 CT1 2015)
- 114. Is your society doing enough to protect the rights of the disadvantaged? (RI Y5 Promo 2015)
- 115. 'Foreign intervention in a developing nation does more harm than good.' Comment. (RI Y6 Prelims 2013)
- 116. Is it possible to do more to protect the children of the world? (RI Y6 CT2 2013)
- 117. Many developed countries are paying increasing attention to the needs of the disadvantaged. How far is this true in Singapore? (Cambridge 2008)
- 118. How far should a state have a right to monitor the actions of people within its borders? (Cambridge '07)
- 119. To what extent should we sacrifice individual civil rights for the benefit of our community? (RJC J2 CT2 2003)
- 120. What do you understand by the phrase 'it's a free country'? (RJC J1 Promo 2003)

Reading 1: An Introduction to Globalisation

EU1 & EU2

EU1: Globalisation is a multi-faceted phenomenon: We see this increased mobility, interconnectivity, and exchange economically, politically, and socially.

EU2: The particular circumstances of different countries and individuals have a significant bearing on whether they are on the receiving end of the benefits or detriments of globalisation.

The following reading will help you to:

- Have an understanding of the concept of globalisation and how this process has accelerated increased over time.
- Grasp a range of different ways in which globalisation has impacted modern society, both for the better and for the worse.

Globalisation is a process of interaction and integration among the people, companies, and governments of different nations, a process driven by international trade and investment and aided by information technology. As people, ideas, knowledge, and goods move more easily around the globe this leads to the expansion of international cultural, economic, and political activities.

In simple terms, globalisation is the process by which people and goods move easily across borders. Principally, it's an economic concept – the integration of markets, trade and investments with few barriers to slow the flow of products and services between nations. There is also a cultural element, as ideas and traditions are traded and assimilated and a political element with increasing interdependence between states and the rise of inter-governmental organisations (e.g. United Nations, the European Union, World Trade Organization) and the influence of non-state actors such as multinational organisations, and non-governmental organisations (e.g. Greenpeace, Oxfam)

Globalisation has impacts on culture, on political systems, on economic development and prosperity, on the environment, and ultimately on human physical well-being in societies around the world.

Globalisation in History

5

10

20

25

Globalisation is not new, though. For thousands of years, people—and, later, corporations—have been buying from and selling to each other in lands at great distances, such as through the famed Silk Road across Central Asia that connected China and Europe during the Middle Ages. Likewise, for centuries, people and corporations have invested in enterprises in other countries. In fact, many of the features of the current wave of globalisation are similar to those prevailing in the past.

Globalisation has a long history. Ancient Greek culture, for instance, spread across much of southwestern Asia, northern Africa, and southern Europe. The globalisation of Greek culture came with the conqueror Alexander the Great. In fact, there are cities named for Alexander in Iraq (Iskandariya), Egypt (Alexandria), and Turkey (Alexandria Troas).

The Silk Road, a trade route between China and the Mediterranean Sea, promoted the exchange of ideas and knowledge, along with trade goods and foods such as silk, spices, porcelain, and other treasures from the East.

When Europeans began establishing colonies overseas, globalisation grew. Many early European explorers were eager to bring the Christian religion to the regions they visited. The globalisation of Christianity spread from Europe to Latin America through Christian missionaries working with the local populations.

Globalisation was accelerated in the nineteenth century with the Industrial Revolution, as mechanical mills and factories became more common. Many companies used raw materials from countries outside their borders. They also sold their goods in other countries.

Case Study: Cotton Manufacturing in 19th Century Britain

Britain's colony in India, for instance, supplied cotton to British merchants and traders. Madras, a light cotton cloth, was initially made in the city of Madras (now called Chennai), a major port in India. Eventually, madras cloth was no longer manufactured in Madras at all—the Indian labor force supplied the raw material, cotton. Factories in the county of Lancashire, England, created madras cloth. British factories made fabric and other goods from the cotton. British manufacturers could then sell their finished goods, such as clothing and blankets, to buyers all over the world including the United States, Brazil, Australia, even India.

Modern Globalisation

Policy and technological developments of the past few decades have spurred increases in cross-border trade, investment, and migration so large that many observers believe the world has entered a qualitatively new phase in its economic development. Since 1950, for example, the volume of world trade has increased by 20 times. Distinguishing this current wave of globalisation from earlier ones, author Thomas Friedman has said that today globalisation is "farther, faster, cheaper, and deeper."

50 Free Market Policies

35

40

55

60

65

80

This current wave of globalisation has been driven by policies that have opened economies domestically and internationally. In the years since the Second World War, and especially during the past two decades, many governments have adopted free-market economic systems, vastly increasing their own productive potential and creating myriad new opportunities for international trade and investment. Governments also have negotiated dramatic reductions in barriers to commerce and have established international agreements to promote trade in goods, services, and investment. Taking advantage of new opportunities in foreign markets, corporations have built foreign factories and established production and marketing arrangements with foreign partners. A defining feature of globalisation, therefore, is an international industrial and financial business structure.

Communication and Information Technology

Modern communication has played a large role in cultural globalisation. Today, news and information zips instantly around the world on the internet. People can read information about foreign countries as easily as they read about their local news. Through globalisation, people may become aware of incidents very quickly. In seconds, people are able to respond to natural disasters that happen thousands of miles away.

About 60 percent of the people in the world now use cell phones. A farmer in Nigeria can easily talk to his cousin who moved to New York City, New York. The success of global news networks like CNN have also contributed to globalisation. People all over the world can see the same news 24 hours a day.

Information technology has also dramatically transformed economic life. Information technologies have given all sorts of individual economic actors—consumers, investors, businesses—valuable new tools for identifying and pursuing economic opportunities, including faster and more informed analyses of economic trends around the world, easy transfers of assets, and collaboration with far-flung partners.

Improvements in transport generally – faster ships, trains and airplanes – have allowed us to move around the globe much more easily. One example is container shipping which allows goods to be shipped across the world.

Impacts of Globalisation

Economic Impacts

The international economy has also become more globalised in recent decades. International trade is vital to the economies of most countries around the world and the countries are now more interdependent and

interconnected. American software companies, such as Microsoft, rely on international trade to make large profits. The economy of the country of Saudi Arabia is almost entirely dependent on oil exports to other countries.

To increase trade, many countries have created free trade agreements with other countries. Under free trade agreements, countries agree to remove trade barriers. For example, they may stop charging tariffs, or taxes, on imports. In 1994, the United States, Mexico, and Canada signed the North American Free Trade Agreement (NAFTA), which eventually ended all tariffs on trade goods between the three nations. The European Union has resulted in the removal of all tariffs and barriers to the free flow of goods or services and factors of production amongst member states, even allowing for the free movement of labour.

Most large corporations operate in many countries around the world. Originally, HSBC stood for HongKong Shanghai Banking Corporation, which was founded in 1865 to promote trade between China and the United Kingdom. Today while HSBC is headquartered in London, it has become the world's largest bank, and has offices in 88 different countries.

Economic globalisation has allowed many corporations based in the West to move factories and jobs to less economically developed countries, a process called outsourcing. The corporation can pay lower wages, because the standard of living in less developed countries is much lower. Often, this results in lower costs for consumers, too. However, laws protecting the environment and workers' safety are less widespread in developing countries, and workers welfare and rights are not always respected.

Economic markets are global. People and organizations invest in companies all over the globe. Because of this, economic downturns in one country are repeated in other countries. The financial crisis that began in the United States in 2007 quickly spread around the world. What was a sovereign debt crisis in Europe starting with a few states such as Greece in 2011 soon had impacts all over the world.

Political Impacts

Economic globalisation has resulted in countries becoming more connected politically. Countries frequently cooperate to enact trade agreements. They work together to open their borders to allow the movement of money and people needed to keep economic globalisation working. Many problems facing the world today cross national borders, so countries must work together to solve them.

Efforts to confront problems often involve many different countries. A good example is the global effort to combat climate change. In 2015, representatives from 196 countries gathered in Paris to discuss climate change leading to a landmark agreement to mitigate the impact of climate change. Other international issues include terrorism, drug trafficking, and immigration. Because people, money, and computerized information move so easily around the globe, countries are increasingly working together to fight crime. The idea of maintaining international law has also grown. In 2002, the International Criminal Court was established. This court, which handles cases such as war crimes, has a global reach, although not all countries have accepted it.

Culture

110

115

Culture has also become more globalised. People in the United States may enjoy listening to South African music and reading Japanese comic books. American soap operas such as Days of Our Lives are popular in Israel.

This need not just be a case of Westernization or Western cultural influences. India, for instance, has a thriving film industry, nicknamed "Bollywood." Bollywood movies are popular both in India and with the huge population of Indians living abroad. In fact, some Bollywood movies do much better in the United States or the United Kingdom than they do in India.

Clothing styles have also become more uniform as a result of globalisation. National and regional costumes have become rarer as globalisation has increased. In most parts of the world, professionals such as bankers wear suits, and jeans and T-shirts are common for young people.

There has also been an increasing exchange of foods across the globe. People in England eat Indian curry. People all over the world now enjoy Japanese sushi. Meanwhile, American fast food chains have become common throughout the world. McDonald's has more than 31,000 restaurants in 118 countries. And people all across the world are eating more meat and sugary foods, like those sold in fast food restaurants.

The worldwide expansion of McDonald's has become a symbol of globalisation. Some menu items, such as the Big Mac, are the same all over the world. Other menu items are specific to that region. McDonalds in Japan features a green-tea flavored milkshake. At McDonald's in Uruguay, a "McHuevo" is a burger topped with a fried egg. Globalisation has brought McDonald's to billions of consumers worldwide.

Movement of People Across Borders

130

135

140

145

150

155

160

165

170

Globalisation has also resulted in increased movement of people across borders. Each year, millions of people move from one country to another in search of work. Sometimes, these migrant workers travel a short distance, such as between the Mexican state of Sonora and the U.S. state of California. Sometimes, migrant workers travel many thousands of miles. Migrant workers from the Philippines, for instance, may travel to Singapore, the Middle East, Europe, or North America to find better-paying jobs.

People do not travel just for work, of course. Millions of people take vacations to foreign countries. Most of these international tourists are from developed countries. Many are most comfortable with goods and services that resemble what they have at home. In this way, globalisation encourages countries around the world to provide typical Western services. The facilities of a Holiday Inn hotel, for instance, are very similar, whether the location is New York, or Bangkok, Thailand.

Travel and tourism have made people more familiar with other cultures. Travelers are exposed to new ideas about food, which may change what they buy at the store at home. They are exposed to ideas about goods and services, which may increase demand for a specific product that may not be available at home. They are exposed to new ideas, which may influence how they vote. In this way, globalisation influences trade, taste, and culture.

What's bad about it?

While some areas have flourished, others have floundered as jobs and commerce move elsewhere. Steel companies in the US, for example, once thrived, providing work for hundreds of thousands of people. But when China began producing cheaper steel, steel plants closed down and thousands of jobs were lost. This was the impetus for the steel tariffs that US President Donald Trump recently announced.

To its fiercest critics, globalisation, the march of international capitalism, is a force for oppression, exploitation and injustice. While many have been lifted out of poverty, not everybody has benefited. Many argue that globalisation operates mostly in the interests of the richest countries, with most of the world's collective profits flowing back to them and into the pockets of those who already own the most. Even if globalisation is helping to create more wealth in developing countries, it is not helping to close the gap between the world's poorest and richest nations instead worsening the global inequality crisis.

Opponents of globalisation also claim that the creation of an unfettered international free market has benefited multinational corporations in the Western world at the expense of local enterprises, local cultures, and common people and in some cases resulted in exploitation.

Critics have also argued that globalisation has resulted in cultural homogenisation, and a loss of cultural diversity. What could result is the destruction of cultural identities through a form of cultural imperialism and the creation of a global monoculture. The rise of Westernised consumer culture in particular the idea of 'Americanisation' representing the pervasive influence of American products, television shows and Hollywood movies has often been blamed. Terms such as the 'Coca-colonisation' of other countries have been coined to refer to the dominance of American products, which some critics of globalization view as a threat to the cultural identity of these nations.

Case Study: Starbucks

The first Starbucks outlet opened its doors in 1971 in the city of Seattle. Today it has 15,000 stores in 50 countries. These days you can find a Starbucks anywhere, whether Australia, Cambodia, Chile or Dubai. It's what you might call a truly globalised company.

And for many suppliers and jobseekers, not to mention coffee-drinkers, this was a good thing. The company was purchasing 247 million kilograms of unroasted coffee from 29 countries. Through its stores and purchases, it provided jobs and income for hundreds of thousands of people all over the world.

However, Starbucks has been criticized in some quarters for exploiting coffee producers. In 2006, it was censured by UK charity group Oxfam for not fully supporting fair trade efforts, potentially robbing Ethiopian coffee growers of \$88m in profits. They were seen to be complicit in the exploitation of farmers and commodity growers who may not reap the benefits of their hard-earned produce. For every kilogram of coffee beans an Ethiopian farmer sells for \$3, it is estimated that people up in the supply chain make around \$200, in particular large multinationals like Starbucks.

In 2012, Starbucks also made headlines after a Reuters investigation showed that the chain hadn't paid much tax in many of the countries it operated in. For example, despite having almost a thousand coffee shops in the UK and earning millions of pounds in profit there, they paid minimal taxes.

As a multinational company, Starbucks was able to use complex accounting rules that enabled it to have profit earned in one country taxed in another. By paying taxes in a country that had a lower tax rate, Starbucks benefited. But the people in the countries where it operated lost out as their governments were raising less tax to spend on improving their well-being. Apple, Amazon and many other multinationals have also been similarly accused of such practices.

Finally, attempts by Starbucks to expand into France, with its long-standing cafe society culture and love of coffee, was met by a combination of derision and hostility. It was seen as yet another example of US cultural imperialism, and US-driven globalisation that threatens French culture alongside McDonald's and the opening of a Disneyland in Paris.

For Discussion:

- 1. What is globalisation? How is it defined in this article?
- 2. Why is the modern concept of globalisation different from past globalizations and what are the leading causes?
- 3. Summarize the economic, political and cultural effects of globalisation
- 4. Which of the criticisms of globalization do you think is the most significant and why?
- 5. How does the case study of Starbucks illustrate both the benefits and detriments of globalisation?

Suggested Online Resources:

The SUNY Levin Institute Globalisation 101: http://www.globalization101.org
Yale University: Yale Center for the Study of Globalisation: https://ycsg.yale.edu
Global Transformations Website (Essays Section): http://www.polity.co.uk/global/essays.asp

Reading 2:

EU1

The Changing Nature of Globalization in Our Hyperconnected, Knowledge-Intensive Economy Irving Wladawsky-Berger | Wall Street Journal |June 2014

EU1: Globalisation is a multi-faceted phenomenon: We see this increased mobility, interconnectivity, and exchange economically, politically, and socially.

This reading will help you understand:

- how fast the world economy is transforming,
- how the world has transitioned from a connected to an increasingly hyperconnected world,
- what a hyperconnected economy is,

5

10

25

- how digital technologies and growing mobile subscriptions are driving cross-border flows, and
- how the nature of cross-border flows are changing in a knowledge-intensive economy

In April, 2005, NY Times columnist Tom Friedman published *The World is Flat: A Brief History of the Globalized World in the Twenty-first Century.* Mr. Friedman's bestseller did much to explain to a wide audience the impact of the Internet and related technologies on the connected, global economy that was rising all around us.

A few years later, Mr. Friedman was a keynote speaker at a 2011 conference commemorating IBM Corp.'s Centennial. To illustrate the incredibly fast pace of change, Mr. Friedman noted that in the short time-span since World is Flat was published, we were already transitioning from a *connected* to an increasingly *hyperconnected* world. Many of the companies and technologies that are now part of our everyday conversations—Facebook Inc., Twitter, the cloud, smartphones, Big Data, LinkedIn Inc., 4G, Skype—were not mentioned in the *connected* global economy he wrote about only six years earlier because they had not been born or were in their infancy.

What do we mean by a *hyperconnected* economy? I recently found a really good answer in an excellent study by the McKinsey Global Institute, *Global Flows in the Digital Age*. The study takes an indepth look at the expansion of cross-borders flows in the economy. It carefully analyzed these flows in five different categories: goods, services, finance, people and data and communications. It then developed the MGI Connectedness Index, which measures these five flows in 131 countries, examined how the flows had changed over the past 10 to 20 years, and predicted how they are likely to evolve over the next decade.

Two major forces have been driving the growth of cross-border flows. First is the continuous advances in digital technologies, in particular, the spread of Internet access around the world. We've been going through a kind of digital *perfect storm*, where a number of major IT trends are each gathering speed while interacting with and amplifying each other: mobile devices, cloud computing, Internet of Things, social networks and Big Data and analytics.

The number of mobile subscriptions around the world is already approaching 7 billion, while close to 3 billion have access to the Internet. Cross-border Internet traffic has been going up by over 50% since 2005. As the cost of smartphones and Internet access keep dropping, data and communications flow—the enabling foundation for all other digital flows—will continue increasing at a similar torrid pace.

30 Even more dramatic is the expected rise in global prosperity over the next decades. McKinsey estimates that over the coming decade, up to three billion additional people will connect to the Internet with mobile devices and wireless networks. They will thus become part of the global digital economy, and will see significant improvements in their standard of living. "By 2025, 1.8 billion people

55

65

around the world will enter the consuming class, nearly all from emerging markets, and emerging-market consumers will spend \$30 trillion annually, up from \$12 trillion today."

What is the impact of technology advances and rising economic prosperity on the global economy? According to the MGI study, the combined value of trade in goods and services plus financial flows grew from \$5 trillion or 23% of global GDP in 1990 to \$26 trillion or 36% of world GDP in 2012. If present trends continue, the value of these flows could triple by 2025, thus having a major impact on economic growth.

- The MGI Connectedness Index measures the degree of *connectedness* of 131 countries across all five flows. For each country, it then calculates an overall *flow intensity*, a single measure that reflects that country's connectedness across all flows. McKinsey's analysis found an overall positive correlation between increased flows and GDP growth. Countries with the highest flow intensities can expect up a 40% increase in GDP growth compared to the least connected countries.
- Not surprisingly, the Index found that developed economies have higher flow intensities, that is, are more connected than emerging economies. Germany tops the list, followed by Hong Kong, the U.S., Singapore, the UK, Netherlands, France and Canada. However, the situation is changing as emerging economies are rapidly gaining ground, including Brazil, China and India.
- Besides rising cross-border flows, the study uncovered that the very nature of these flows is changing.

 The globalization that Tom Friedman wrote about a decade ago was primarily based on the outsourcing of labor-intensive tasks from the developed world to developing countries with lower labor costs, as well as by commodity-intensive flows, like oil, from the countries with those resources. But things are different in our emerging knowledge-intensive economy. According to McKinsey:
 - "Knowledge-intensive goods and services flows (as opposed to labor-, capital- or resource-intensive ones) include goods and activities that have a high R&D component or utilize highly skilled labor. As such, they help transmit information, ideas, or expertise among exchanging parties. Examples include high-tech products such as semiconductors and computers, pharmaceuticals, automobiles and other machinery, and business services such as accounting, law, and engineering."
- The study estimates that the value of knowledge-intensive flows was \$12.6 trillion in 2012, nearly half the \$26 trillion total value of cross-border flows. Knowledge-intensive flows are growing at 1.3 times the rate of labor-intensive flows, and so their share will continue to increase.
 - Moreover, digital technologies are continuing to transform many cross-border flows. Digital flows—with their lower costs of access, transport, and production—are replacing the flow of many physical goods, e.g. e-books, digital music, games, news and entertainment and streaming movies. Digital communications and collaborations of all sorts are substituting for work that previously involved physical travel. 3-D printing holds the promise of revolutionizing the production of physical goods with an increasing portion of such goods being manufactured just-in-time at their point of consumption.
- Digital technologies are also playing a major role in improving the production, distribution and operations of physical goods, resulting in a significant improvement to their overall productivity and quality. Examples include tracking shipments of goods, and monitoring and optimizing the performance of all kinds of physical things—i.e., the Internet of Things. In addition, online platforms make it easier to transact goods and services across borders. For example, 90% of eBay sellers export their goods to other countries, compared with an average of 25% for traditional small companies.

In the not too distant past, global flows were concentrated in the more advanced economies, as well as in large, global companies. But, digital technologies and rising prosperity are combining to significantly disperse global flows, making it possible to include a larger number of countries as well as a larger number of participants across all countries. McKinsey notes that:

"The network of global flows is expanding rapidly as emerging economies join in. Rising incomes in the developing world are creating enormous new centers of consumer demand, global production, and commodities trade, as well as sending more people across borders for business and leisure. Existing routes of flows are broadening and deepening and new ones emerging as more countries participate. Developing economies now account for 38 percent of global flows, nearly triple their share in 1990. South—South goods flows between developing countries have grown from roughly \$200 billion (6 percent of goods flows) in 1990 to \$4.2 trillion (24 percent) in 2012."

"Not only more countries but also more players are participating in global flows. Governments and multinational companies were once the only actors involved in cross-border exchanges. But today, digital technologies enable even the smallest company or solo entrepreneur to be a *micromultinational*, selling and sourcing products, services, and ideas across borders. Individuals can work remotely through online platforms, creating a virtual people flow. Microfinance platforms enable entrepreneurs and social innovators to raise money globally in ever-smaller amounts."

Advances in technology and rising standards of living will continue to accelerate the pace of change in our hyperconnected, knowledge-intensive economy. "For players of all types- whether regions, countries, cities, businesses, or individuals – there are major economic opportunities from participating in global flows. The imperative for policy makers is to fully embrace the new era and ensure that their economies are positioned to benefit from it."

https://blogs.wsj.com/cio/2014/06/20/the-changing-nature-of-globalization-in-our-hyperconnected-knowledge-intensive-economy/

Reflection Questions:

80

85

90

95

The rapidly growing flows of international trade and finance that characterised the 20th century have flattened or declined since 2008. Yet globalisation is not moving into reverse. Instead digital flows are soaring—transmitting information, ideas, and innovation around the world and broadening participation in the global economy.

Changing Nature of Globalisation in a Hyperconnected World

- 1. Examine how today's more digital form of globalisation is changing who is participating, how business is done across borders, how rapidly competition moves, and where the economic benefits are flowing.
- 2. How has digitisation changed the economics of globalisation? How will this influence and impact the nature of relationships between:
- State and citizen
- Enterprise and consumer
- Enterprise and government
- Government and government

Governance Failure in Times of Economic Anxiety

Beyond the economic aspect, governance failure in a hyperconnected world is a common concern for both governments and citizens.

- 1. Economic Anxiety: Why and how do seeds of dystopia take root when disparities in wealth become more transparent? How are the consequences of governance failure amplified in a hyperconnected world?
- 2. How safe are our safeguards? Consider the policies, norms, regulations, or institutions through which we manage the complex systems on which global prosperity depends.

Blockchains and Cryptocurrencies

- 1. Examine how blockchains, the technology underpinning the cryptocurrency, have the potential to revolutionise the world economy further.
- 2. Are cryptocurrencies the future of money? Consider how well they compete with other, already established payment methods—cash, checks, debit and credit cards, PayPal, etc.)

Governance in a Hyperconnected World

Change is happening infinitely faster in a hyperconnected world. The disruptions of today are moving so fast they are getting beyond the capacity of individuals and institutions to comprehend them, let alone manage their impact.

- 1. Are our democratic institutions and instruments ready to meet the demands of a hyperconnected world?
- 2. How can we accelerate the human transformation required to keep pace with accelerating technological innovation and disruption? How can we avoid massive social dislocation, or worse?
- 3. Consider how governments, the private sector, civil society, and individuals need to collaborate to forge new common understandings

Essay Questions:

It will help you to:

- 1. Discuss the claim that the digital age has made it more challenging for political leaders to govern today. (RI 2018 Yr6 CT1)
- 2. Is competition always desirable? (Cambridge 2016)
- 3. Discuss the claim that in the modern world people should care more about international than national issues. (Cambridge 2013)
- 4. 'The key criterion for good government is how well the economy is managed.' Is this a fair assessment? (Cambridge 2012)
- 5. How far should countries aim to be self-sufficient? (Cambridge 2011)
- 6. 'National boundaries make little geographical or economic sense nowadays.' Discuss. (Cambridge 2006)
- 7. Have multi-national businesses had a positive or negative impact on your society? (Cambridge 2004)

Reading 3: Global Risks 2018: Fractures, Fears and Failures Edited excerpt of the World Economic Forum Global Risks Report

EU1-7

and excerpt of the Wena Economic Forum Global Filono Report

This reading spans most of the essential understandings in this package.

- Understand the broad challenges, especially geopolitical issues that may affect the majority of the world in 2018.
- Recognise that these challenges are exarcebated by the interconnected, networked nature of today's world.

Last year's Global Risks Report was published at a time of heightened global uncertainty and rising popular discontent with the existing political and economic order. One year on, the urgency of facing up to these challenges has, if anything, intensified. In the sections that follow, we highlight four concerns: (1) persistent inequality and unfairness, (2) domestic and international political tensions, (3) environmental dangers and (4) cyber vulnerabilities. We conclude by reflecting on the increased dangers of systemic breakdown.

1. Inequality and unfairness

5

10

15

20

25

30

35

40

Economic risks can be hugely disruptive, and last year brought fresh evidence of chronic economic problems, particularly related to inequality. According to the IMF, over the past three decades 53% of countries have seen an increase in income inequality, with this trend particularly pronounced in advanced economies. Furthermore, today's economic strains are likely to sow the seeds for longer-term problems. High levels of personal debt, coupled with inadequate savings and pension provisions, are one reason to expect that frustrations may deepen in the years ahead.

Automation is another potential driver of growing inequality. Automation has already been a disruptive labour-market force, and its effects are likely to be long-lasting as new technologies diffuse throughout the global economy. For the foreseeable future, automation and digitalization can be expected to push down on levels of employment and wages, and contribute to increases in income and wealth at the top of the distribution.

These are not just economic risks. Norms relating to work are an important part of the implicit contract that holds societies together. If many people's hopes and expectations relating to employment are fraying, we should not be surprised if this has wider political and societal effects. The idea that "the system is rigged" has gained electoral traction in recent years, and research suggests that concerns about inequality rest on more fundamental worries about societal fairness. One fault line around fairness that came to particular prominence in 2017 is gender. The global gender parity gap across health, education, politics and the workplace widened for the first time since we began tracking it in 2006, while a succession of high-profile cases are highlighting continuing endemic levels of sexual harassment, both in the workplace and in society generally.

2. Risks of conflict

Debates about the populist surge of recent years tend to pit economic causes against cultural ones, but there is a strong case for arguing that the two are closely related—that economic pain has been sufficiently concentrated among groups and geographic regions for those groups and regions to begin to assert themselves politically. Clashes related to identity and community continue to drive political dislocations in many countries and are increasingly fuelling cross-border tensions.

This is perhaps still most evident in the United Kingdom and the United States, the two Western countries that recorded dramatic anti-establishment democratic results in 2016. The United Kingdom's political system is struggling to cope with the strains unleashed by the decision to leave the European Union, while in the United States deepening polarization has, among other things, weakened democratic debate and increased the confidence of far right movements.

In Europe, fears about the rise of the far right were allayed by the victory of Emmanuel Macron in the French presidential election in May 2017—but perhaps at the risk of fostering complacency about the region's political stability. As highlighted by elections in Germany and Austria in late 2017, far right parties continue to grow in strength and influence in many European countries. More generally, issues of culture and identity are causing political tension within and between a growing number of EU countries, including

Poland, Hungary and, in different ways, Spain. Polarization between groups with different cultural heritages or values looks set to remain a source of political risk in Western countries in 2018 and beyond.

- The escalation of geopolitical risks was one of the most pronounced trends of 2017, particularly in Asia, where the North Korea crisis has arguably brought the world closer than it has been for decades to the possible use of nuclear weapons. There are numerous other potential flashpoints around the world, not least in the Middle East, where an increasing number of destabilizing forces might lead to the eruption of new military conflicts in addition to those in Syria and Yemen.
- Geopolitical risks are exacerbated by the continuing decline in commitment to rules-based multilateralism. In 2017, President Trump delivered on some of his unilateralist campaign pledges, withdrawing the United States from both the Paris Agreement on climate change and the Trans-Pacific Partnership (TPP) trade deal. Although the United States has not withdrawn from the deal designed to halt Iran's nuclear weapons programme, the Joint Comprehensive Plan of Action (JCPA), in October 2017 President Trump signalled his dissatisfaction by refusing to certify that Iran is in compliance with it. It is important to note that all of these agreements remain in place and that other states and non-state actors have sought to compensate for the waning multilateralism of the United States. Nevertheless, the erosion of institutions of multilateral dialogue and decision-making damages the prospects of reaching new global agreements at a time when the need for cooperation looks more urgent than ever.

60 3. Our planet on the brink

65

70

75

Environmental risks have grown in prominence. Extreme weather events in 2017 included unusually frequent Atlantic hurricanes, with three high-impact storms—Harvey, Irma and Maria—making landfall in rapid succession. Extreme rainfall can be particularly damaging—of the 10 natural disasters that caused the most deaths in the first half of 2017, eight involved floods or landslides. Storms and other weather-related hazards are also a leading cause of displacement.

Last year also saw numerous instances of extreme temperatures. During 2017, record high temperatures were experienced from parts of southern Europe to eastern and southern Africa, South America, and parts of Russia and China. California had its hottest summer ever and by the end of November, wildfire burn across the United States was at least 46% above the 10-year average, and was continuing into December. Meanwhile in Portugal, more than 100 wildfire-related deaths were recorded.

Rising temperatures and more frequent heatwaves will disrupt agricultural systems that are already strained. The prevalence of monoculture production heightens vulnerability to catastrophic breakdowns in the food system—more than 75% of the world's food comes from just 12 plants and five animal species, according to the Food and Agriculture Organization of the United Nations, and it is estimated that there is now a one-in-twenty chance per decade that heat, drought, and flood events will cause a simultaneous failure of maize production in the world's two main growers, China and the United States. This would cause widespread famine and hardship. Fears of "ecological Armageddon" are being raised by a collapse in populations of insects that are critical to food systems: researchers in Germany found falls in such populations of more than 75% over 27 years.

More broadly, biodiversity loss is now occurring at mass-extinction rates. Globally, the primary driver of biodiversity loss is the human destruction of habitats including forests—which are home to approximately 80% of the world's land-based animals, plants, and insects —for farming, mining, infrastructure development and oil and gas production. A record 29.7 million hectares of tree cover was lost in 2016—an area about the size of New Zealand. This loss was about 50 percent higher than 2015. As much as 80% of the deforestation in Amazon countries is accounted for by cattle ranching, suggesting that pressures on

environmental and agricultural systems will intensify as the global population increases, pushing up demand for meat.

Pollution moved further to the fore as a problem in 2017: indoor and outdoor air pollution are together responsible for more than one tenth of all deaths globally each year, according to the World Health Organization (WHO). Deaths are overwhelmingly concentrated in low- and middle-income countries, where health problems caused by pollution exacerbate strains on already stretched health systems and public finances. In November 2017, a public health emergency was declared in Delhi when air pollution reached more than 11 times the WHO guideline levels. Urban air pollution is likely to worsen, as migration and demographic trends drive the creation of more megacities.

Soil and water pollution are also causing a significant number of deaths. Many of the associated risks to health are still not well understood. Research suggests, for example, that the huge volume of plastic waste in the world's water is finding its way into humans. People eating seafood could be ingesting up to 11,000 pieces of micro-plastic every year. Micro-plastic fibres are found in 83% of the world's tap water. One concern is that these micro-fibres could bind with compounds containing toxic pesticides or metals, providing these toxins with a route into the body.

The growing urgency of acting to halt climate change was demonstrated in 2017 with the news that emissions of CO2 had risen for the first time in four years, bringing atmospheric concentrations of CO2 to 403 parts per million, compared with a pre-industrial baseline of 280 parts per million. The increase in emissions last year was partly a result of developments in China, where the heatwaves mentioned above led to a 6.3% increase in energy consumption, and extreme drought in the north of the country led to a switch from hydro to coal-fired power generation. There are reasons to expect further upward pressure on CO2 concentrations in the future. Having absorbed 93% of the increase in global temperatures between 1971 and 2010, the world's oceans continue to get warmer and studies suggest that their capacity to absorb CO2 may be declining.

The risk that political factors might disrupt efforts to mitigate climate change was highlighted last year when President Trump announced plans to withdraw the United States from the Paris Agreement. However, several other major economies—notably China—reaffirmed their support of the Paris Agreement during 2017. In addition, many US businesses, cities and states have pledged to help deliver on the country's emissions reduction targets. This kind of network of subnational and public-private collaboration may become an increasingly important means of countering climate change and other environmental risks, particularly at a time when nation-state unilateralism appears to be ascendant.

In addition to meeting the immediate environmental challenges that we face, we also need to focus more acutely on the potential economic and societal risks that may arise as transition to a low-carbon and environmentally secure world accelerates. For example, dramatic changes in the way energy is produced are likely to trigger large-scale labour-market disruptions.

4. Cyber-defences are being tested

90

105

120

125

Moving from the environmental commons to the virtual commons, cyber-risks intensified in 2017. Attacks are increasing, both in prevalence and disruptive potential. Cyber breaches recorded by businesses have almost doubled in five years, from 68 per business in 2012 to 130 per business in 2017. Having been choked off by law enforcement successes in 2010–2012, "dark net" markets for malware goods and services have seen a resurgence: in 2016 alone, 357 million new malware variants were released and "banking trojans" designed to steal account login details could be purchased for as little as US\$500. In addition, cybercriminals have an exponentially increasing number of potential targets, because the use of

130

135

140

145

150

155

160

165

cloud services continues to accelerate and the Internet of Things is expected to expand from an estimated 8.4 billion devices in 2017 to a projected 20.4 billion in 2020.

What would once have been considered large-scale cyberattacks are now becoming normal. For example, in 2016, companies revealed breaches of more than 4 billion data records, more than the combined total for the previous two years. Distributed denial of service (DDoS) attacks using 100 gigabits per second (Gbps) were once exceptional but have now become commonplace, jumping in frequency by 140% in 2016 alone.

The financial costs of cyberattacks are rising. Some of the largest costs in 2017 related to ransomware, a rapidly growing form of malware that locks targets out of their data and demands a ransom in return for restoring access. Notable examples included the WannaCry attack, which affected 300,000 computers across 150 countries, and Petya and NotPetya, which caused huge corporate losses: for example, Merck, FedEx and Maersk each reported third-quarter losses of around US\$300 million as a result of NotPetya.

Beyond its financial cost, the WannaCry attack disrupted critical and strategic infrastructure across the world, including government ministries, railways, banks, telecommunications providers, energy companies, car manufacturers and hospitals. It illustrated a growing trend of using cyberattacks to target critical infrastructure and strategic industrial sectors, raising fears that, in a worst-case scenario, attackers could trigger a breakdown in the systems that keep societies functioning. Many of these attacks are thought to be state sponsored. WannaCry's ultimate impact was relatively low, largely because a "kill switch" was discovered, but it highlighted the vulnerability of a wide range of infrastructure organizations and installations to disruption or damage. Evidence has been mounting of further attempts to target critical infrastructure: last year saw reports of attempts to use spear-phishing attacks (stealing data or installing malware using individually targeted email scams) against companies operating nuclear power plants in the United States.

Most attacks on critical and strategic systems have not succeeded—but the combination of isolated successes with a growing list of attempted attacks suggests that risks are increasing. And the world's increasing interconnectedness and pace heightens our vulnerability to attacks that cause not only isolated and temporary disruptions, but radical and irreversible systemic shocks.

Our growing vulnerability to systemic risks

Societies, ecosystems, economies and the global financial system are all examples of such complex systems, and they have various intersections. Think of how the world's infrastructure—from power generation to transport networks—is increasingly digitally networked. Think of the tensions between our creaking global institutional framework and the pace of change in the 21st century.

When a risk cascades through a complex system, the danger is not of incremental damage but of "runaway collapse"—or, alternatively, a transition to a new, suboptimal status quo that becomes difficult to escape. As the pace of change accelerates, signs of strain are evident in many of the systems on which we rely. We cannot discount the possibility that one or more of these systems will collapse. Just as a piece of elastic can lose its capacity to snap back to its original shape, repeated stress can lead systems—organizations, economies, societies, the environment—to lose their capacity to rebound. If we exhaust our capacities to absorb disruption and allow our systems to become brittle enough to break, it is difficult to overstate the damage that might result.

For Discussion:

- 1. Choose one of the four areas of risk highlighted and evaluate the extent to which your society is likely to be affected by it.
- 2. The author warns of a "runaway collapse" as "risk cascades through a complex systems" (In 171).
 - How far do you agree with his concern?
 - In what ways might such a risk be mitigated?
- 3. What new and significant threats, if any, have emerged in 2018 that have not been outlined in this report?

Related Cambridge/RI Essay Questions:

- 1. How far is it important for people to be aware of current events in countries other than their own? (Cambridge 2014)
- 2. Consider the importance of global trends in your society. (RI Y5 CT 2012)

170 EU3, EU4, EU5 & EU7

Reading 4: The Human Security Dimension of China's Belt and Road Initiative

Rosita Dellios and R. James Ferguson | Journal of Management & Sustainability, Vol7 No. 3, 2017

The main enduring understanding for this reading is:

EU3: States use the transnational structures and bodies facilitated by globalisation to advance national interests, but these also create global responsibilities that need to be balanced alongside national interests.

This reading will help you:

- Understand how China's Belt and Road Intiative (BRI) is a transnational project serving to advance China's national interests
- Recognise that BRI will have wide-ranging impacts on the regions it involves, and that there are calls from the international community for China to balance its reach for power with the obligation to mitigate the potential harms incurred

What are the New Silk Roads?

5

10

15

The new silk roads are so named as an evocative reference to the old caravan trade routes in which Chinese silk was a major commodity. There were other commodities and many trade routes, including those by sea and not only land, involving Arabs, Indians, and Southeast Asians, to name but a few. It was a German, Ferdinand von Richthofen, who coined the term Silk Road (or Roads) in the 19th century. This has now become shorthand for more than the original system of overland caravan routes. The new silk roads traverse three continents, two seas and two oceans. The continents are Asia, Europe and Africa, with the Middle East connecting all three. Their maritime counterparts are the South China Sea, the Mediterranean Sea, the Indian Ocean and the Pacific Ocean's southern sector. More specifically, the new silk roads refer to the overland "Silk Road Economic Belt", which Chinese President Xi Jinping announced in Kazakhstan in September 2013, and the "21st Century Maritime Silk Road" that he launched as a plan of economic cooperation a month later in Indonesia. These land and sea routes became known as OBOR (One Belt One Road) and by 2015 were simply referred to as the Belt and Road Initiative (BRI). Like the original "silk road", there was always more than one. The PRC sees this as an evolving initiative that will engage new states, partners, sources of funding and projects over coming decades.

Beyond extended access to resources in Central Asia and Russia, the diverse corridors within the BRI include strategic planning to boost local energy production, providing the backbone for infrastructure and

20

25

30

35

40

45

50

55

60

industrial development. Thus the Visions and Actions planning framework explicitly includes the plan to build new integrated industrial chains based on nearby energy sources, both conventional and renewable. The China-Pakistan Economic Corridor itself will develop power and transportation networks, including coal, hydro, wind and solar sources (Uberoi, 2016; Dong, et al., 2016; Snelder, 2016; Preston, et al., 2016). Likewise, wider Eurasian projects will include the building of up to 30 nuclear power plants by 2030 (Freiman, et al., 2016). A central logic of the new silk roads project is that a wider framework of geopolitical security can be achieved by embracing shared economic growth combined with resource and energy security (Fallon, 2015).

Awareness is growing of the environmental impact and implications of the BRI, including water and ecological security in Central Asia and the Tarim Basin, with increased desertification due to excessive water usage (Chen et al., 2016). China has already found this a serious challenge to its internal Great Western Development project. Water accessibility in Xinjiang, for example, as indicated by water available per capita (surface and ground water), has declined by 30% through 2010-2014, with concerns that climate change will continue to reduce glacial melt flows crucial for the region (NBS, 2016; Millward, 2007). It is realised that poverty reduction may come at the cost of increased environmental degradation, unless the balance between ecological integrity and economic growth can be ensured (Li et al., 2017). The BRI therefore needs to embrace enhanced scientific research, data collection, and international collaboration to reach sustainable management practices based on international collaboration (Li et al., 2015). Related health factors, including the spread of HIV due to increased mobility, have also found a place in recent research (El-Bassel et al., 2016).

However, these diverse approaches do not add up to a comprehensive analysis of the human, societal and environmental impacts of the evolving BRI project. Nor does it provide a normative rationale for the PRC as a major power shaping the well-being and daily life of millions of people beyond its borders.

A Return to Chinese-oriented international relations?

If the Belt and Road Initiative emerges as one of China's historic grand projects, then it would have more in common with the cultural inclusiveness of the tribute system than the defensive and exclusionary Great Wall. The former crossed borders to interact with the world beyond the Chinese empire; the latter demarcated a border between the Han Chinese within and non-Han peoples outside this domain, but seeking to control flows and interactions across the wall. It is worth noting, however, that during the Han dynasty (206 BCE–220 CE) the Great Wall was extended westward to protect trade—and with it the flow of ideas and cultures—along the Silk Road.

The new silk roads may come to represent a return to Chinese-oriented international relations, without losing the features of sovereign equality that distinguishes the Westphalian system from the traditional tribute system of hierarchical or asymmetric relations. (Note 1) But like the older system, the current one will channel ways of thinking along its paths of trade, representing a recalibration of global politics to enhance South-South relations. These often emphasise development, but also political and cultural diversity.

The BRI also foreshadows a return to the pivotal role of Eurasia and the Indian Ocean. One may even speak of an Indo-Eurasian sphere that begins in China, travelling across land and sea until it meets in Europe (detailed below). Beijing, as the author of this grand plan, would have stronger influence in transregional relations, greater economic clout and resource access as well as infrastructure that could be used in projecting its power. Countries in BRI networks have major global resources: over 15% of global oil; over 50% of global gas, 25% of coal, 20% of iron ore, plus considerable resources of bauxite,

zinc, copper and nickel. PRC in turn has become a dominant primary resource importer for countries such as South Sudan, Sudan, Turkmenistan, Mongolia, Laos and Iran (Preston et al., 2016). China has already begun expanding port capacities across the Indo-Pacific at Kyanukoyu, Chittagong, Payra, Hambantota, Colombo, Gwardar, Djibouti, Bagamoyo and Beira, facilities that could be used not just for trade but for China's expanding navy (Tweed, 2016; Albert, 2016).

The current discussion is still embryonic and largely about ports, pipelines, railways and connectivity. It is the human security dimension that awaits further articulation and action. Without this facet, the BRI risks degenerating into mere rhetoric. Worse still, it would represent a setback for eco-social development and hence the foundations of human security. If it succeeds, however, the impact of this transregional development plan would well deserve the status of a historic grand project that contributes to balanced human development on a global scale.

Balancing Silk Roads of Development

65

70

75

80

85

90

95

100

The headquarters of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris was chosen for the launch for the current leadership's developmental strategy. There, in March 2014, President Xi Jinping articulated a "Chinese Dream" that included cultural diversity in the global order (CCTV, 2014). The economic and financial underpinnings of the Chinese Dream have taken the form of the Belt and Road Initiative. It may have captured the headlines and generated media criticism, but **this idea is not outside the scope of Chinese policy in developing poorer regions.** Every year since 2010 China has granted more development loans than the World Bank (Hilpert & Wacker, 2015). According to China's 2014 foreign aid white paper, the PRC provided \$14.41 billion of aid in three forms—grants, interest-free loans and concessional loans—to 121 countries in the three-year period 2010-12 (State Council Information Office, 2014). Moreover, Beijing has pledged to invest over a trillion dollars worldwide by 2025 (Shambaugh, 2015, p. 101).

Unintended outcomes from accelerated infrastructure, industrial and economic development, however, will need careful management. Poor regions with limited connectively to regional and global processes will gain access to the benefits of trade, investment and modernization. However, they may also suffer from negative "flows" including intensified pollution, trafficking of illicit goods, increasing flows by transnational organized crime networks, economic and cultural dislocation, as well as intensified disease vectors. The Bangladesh-China-India-Myanmar Economic Corridor (BCIM-EC) will provide economic benefits to poorer and remote communities between Kunming and Kolkata, but may also provide new routes for illicit drugs (methamphetamines and opiates), increase non-documented labour movements, deepen competition among manufacturing industries in different countries, enlarge trade deficits in weaker economies, intensify environmental destruction (only partly controlled by environmental impact assessments), spread diseases such as AIDS along new transport routes, and increase urbanization pressures (Sajjanhar, 2016; Geall, 2016).

Likewise, the China-Pakistan Economic Corridor (CPEC)—announced by President Xi Jinping during a visit to Islamabad in April 2015—is not without its controversies. The project was viewed as having been "rapidly institutionalized" with many MOUs being signed with a focus on "the power and transportation sectors and involving Chinese investment to the tune of US\$46 billion" by 2030 (Uberoi, 2016). Several major road projects lead from Kashgar in China through Kashmir, Pakistan's tribal areas and then troubled Balochistan down to Gwadar port on Pakistan's southwest coast. It therefore links onto the Maritime Silk Road project and the strategic "string of pearls" agenda whereby Chinese ships (merchant and naval) can gain ready access to Indian Ocean ports. India therefore has been critical of CPEC, seeing it as entrenching China's role in the Indian Ocean, supporting Pakistan's claims to disputed areas of Kashmir,

and undermining India's own developmental project running from Chabahar in Iran to Central Asia (Zaidi, 2016; Brewster, 2016). Expanded investment in Balochistan (Western Pakistan) may intensify the view that locals do not benefit proportionately from such megaprojects unless inclusive growth is generated fairly rapidly. The current insurgency, being led by the United Baloch Army for over a decade, may become a wider security issue hindering national development, leading to a more heavy-handed police or military response (Economist, 2015). Once again, CPEC needs to manage a wide number of political and development issues to avoid such dilemmas.

Both these corridors show the need to factor in inclusive growth into these projects at an early stage. "Inclusive growth" is a set of developmental orientations that has been developed extensively by the Asian Development Bank (ADB), which has had its own difficulties in mitigating the impact of large development projects. Along with the ADB, the World Bank, the Inter-American Development Bank, the Organization for Economic Cooperation and Development (OECD) and UNDP have begun to focus on inclusive development (IDB, 2015) with the following features:

- All members of society participate and contribute
- Particular emphasis on the poor and disadvantaged being able to participate in growth (making inclusive growth "nondiscriminatory")
- Reducing inequality in its non-income dimensions of well-being. This helps promote economic
 opportunities, including education, health, nutrition and social integration. It is the "disadvantagereducing" characteristic of inclusive growth
- Positive per capita GDP growth rates

115

120

125

130

135

- A growth in the income of people belonging to disadvantaged groups, such as women, ethnic minorities, or those living in poor areas
- Improvements in education, mortality rates, access to transportation, communications, and basic services—water, electricity, waste management (Klassen, 2010)

The corridors highlight another issue for BRI as a whole. Many countries engaging in these projects have political instability, patterns of transnational terrorism or organized crime, and long-term social inequality. Several countries along these corridors, including Tajikistan, the Kyrgyz Republic, Uzbekistan, Bangladesh and Pakistan have low GDP per capita (between \$2,980 and \$6,514 in PPP terms), low Human Development Index figures (ranking below 108th globally), have problems in maintaining internal peace and cohesive governance, and have limited environmental stewardship, as collated in Yale University's Environmental Performance Index (see Table 1). Although some of these indices can be challenged as Western-centred and somewhat arbitrary in construction, they do indicate that these states are beset by a wide range of developmental and security issues. They thus welcome investment, aid and trade, but may have problems in both governing and absorbing these flows in a sustainable way.

Attendant risks for China include "social confrontations between local and Chinese workers, environmental degradation issues as well as disputes over an apparent lack of corporate social responsibilities on the part of Chinese firms" (Arduino, 2016). Moreover, the PRC's engagement in overseas projects has already led to debates on the role of Chinese Private Security Companies (PSCs) abroad and to the selective use of the Chinese armed forces in protecting China's wider interests; for example, the transfer of Chinese citizens from crises in Libya and Yemen (Arduino, 2016; Liu, 2015). In the Yemen case, other foreign nationals were also rescued.

Conclusion: Sustaining Human Security

While the BRI has the potential for cultivating cultural openness and a deeper understanding of development as based on mutuality, work still lies ahead. One area is to remedy the "trust deficit" of state-provoked behaviours that are seen in win-lose terms or a pseudo "win-win", with China having a higher percentage of "winning" compared to the "crumbs from the table" for its partners. Patterns of inclusive growth and societal dialogue need to be engaged at an early stage, allowing the management of negative consequences of rapid development. Only then would the massive expenditures and herculean engineering feats find a welcome mat amongst local communities.

155

150

Discussion Questions:

- According to the authors, what might be the intentions of China in setting up the Belt and Road Initiative?
- What are some possible negative consequences on participating nations which China needs to take into account if it is to helm this ambitious project in a globally responsible manner?
- The authors write that "BRI has the potential of cultivating...deeper understanding of development as based on mutuality". In your opinion, is this potential likely to be realised? Why or why not?

Essay Questions:

- 1. "We care for the developed world at the expense of the developing world." Discuss. (RI Y6 CT2 2016)
- 2. "Globalisation has made us more vulnerable." To what extent is this true? (RI Y6 CT1 2013)
- 3. Discuss the extent to which global and national interests can be balanced. (Cambridge 2001)

Reading 5a: Sustainable Development Goals – All You Need To Know EU3 & EU4

By Liz Ford (The Guardian, 3 September 2015)

EU3. States use the transnational structures and bodies facilitated by globalisation to advance national interests, but these also create global responsibilities that need to be balanced alongside national interests.

EU4: One key trade-off resulting from globalisation is that between economic growth and environmental sustainability.

This reading will help you to:

- Understand the background and rationale for the UN's sustainable development goals (SDGs)
- Recognise the implications of adopting the SDGs on UN member states

Note that the SDGs, which are meant to be achieved by 2030, were adopted by the 193-member United Nations General Assembly on 25 September 2015.

1 What are the sustainable development goals?

The sustainable development goals (SDGs) are a new, universal set of goals, targets and indicators that UN member states will be expected to use to frame their agendas and political policies over the next 15 years.

The SDGs follow and expand on the millennium development goals (MDGs), which were agreed by governments in 2001 and are due to expire at the end of this year.

2 Why do we need another set of goals?

There is broad agreement that, while the MDGs provided a focal point for governments – a framework around which they could develop policies and overseas aid programmes designed to end poverty and improve the lives of poor people – as well as a rallying point for NGOs to hold them to account, they were too narrow.

The eight MDGs – reduce poverty and hunger; achieve universal education; promote gender equality; reduce child and maternal deaths; combat HIV, malaria and other diseases; ensure environmental sustainability; develop global partnerships – failed to consider the root causes of poverty and overlooked gender inequality as well as the holistic nature of development. The goals made no mention of human rights and did not specifically address economic development. While the MDGs, in theory, applied to all countries, in reality they were considered targets for poor countries to achieve, with finance from wealthy states. Conversely, every country will be expected to work towards achieving the SDGs.

3 What are the proposed 17 goals?

- 1) End poverty in all its forms everywhere
- 2) End hunger, achieve food security and improved nutrition, and promote sustainable 20 agriculture
- 3) Ensure healthy lives and promote wellbeing for all at all ages
- 4) Ensure inclusive and equitable quality education and promote lilfelong learning opportunities for all
- 5) Achieve gender equality and empower all women and girls

- 6) Ensure availability and sustainable management of water and sanitation for all
- 7) Ensure access to affordable, reliable, sustainable and modern energy for all
- 8) Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
- 9) Build resilient infrastructure, promote inclusive and sustainable industrialisation, and 30 foster innovation
- 10) Reduce inequality within and among countries
- 11) Make cities and human settlements inclusive, safe, resilient and sustainable
- 12) Ensure sustainable consumption and production patterns
- 13) Take urgent action to combat climate change and its impacts
- 14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 15) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss
- 16) Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
- 17) Strengthen the means of implementation and revitalise the global partnership for sustainable development

Within the goals are 169 targets. Targets under goal one, for example, include reducing by at least half the number of people living in poverty by 2030, and eradicating extreme poverty.

4 How were the goals chosen?

The UN has conducted the largest consultation programme in its history to gauge opinion on what the SDGs should include.

Establishing post-2015 goals was an outcome of the Rio+20 summit in 2012, which mandated the creation of an open working group to come up with a draft agenda. The open working group comprises representatives from 70 countries.

Alongside the open working group discussions, the UN conducted a series of global conversations. These included 11 thematic and 83 national consultations, and door-to-door surveys. The results of the consultations were fed into the working group's discussions.

5 Are governments happy about the proposed 17 goals?

The majority appear to be happy, but a handful of member states, including the UK and Japan, are not. Some countries feel that an agenda consisting of 17 goals is too unwieldy to implement or sell to the public, and would prefer a narrower brief. However, there is a consensus that it is better to have 17 goals that include targets on women's empowerment, good governance, and peace and security than fewer goals that do not address these issues.

40

45

Reading 5b: If Everyone Gets Electricity, Will The Planet Survive?

EU4. EU5

By Charles Kenny (The Atlantic, 28 September 2015)

The main enduring understanding(s) for this reading are:

EU4: One key trade-off resulting from globalisation is that between economic growth and sustainability.

EU5: Another consequence is that while globalisation has generated wealth, uneven distribution of both resources and growth has contributed to poverty and inequality.

This reading will help you to:

- Recognise that while sustainable development is desirable, it has to be carefully managed to minimise ramifications
- Acknowledge the tension between improving the quality of life of people in developing countries and addressing the issue of climate change
- Assess conditions needed for successful sustainable development
- Last week, the vast majority of the world's prime ministers and presidents, along with the odd pontiff and monarch, gathered in New York to sign up to the United Nations Sustainable Development Goals (SDGs). Across 169 targets, the SDGs declare the global aspiration to end poverty and malnutrition, slash child mortality, and guarantee universal secondary education by 2030. And they also call for universal access to modern energy alongside taking 5 "urgent action to combat climate change."
- These last two targets are surely important, but they conflict, too: More electricity production 2 is likely to mean more greenhouse-gas emissions. The UN squares that circle by using a definition of modern energy access that involves a pitifully low level of electricity consumption. But that does a disservice to both those worried about development and those concerned by climate change. Poor people are going to have to consume a lot more energy if they are to enjoy a lifestyle that those in the West take for granted—and that is going to take environmental pragmatism in the short term and a revolutionary change in the technology of electricity production in the long term.
- 3 More than 1.3 billion people across the planet have no access to electricity. Many of those who do have access suffer brownouts, blackouts, and other forms of limited supply. Absent electricity, people use less efficient and more harmful substitutes: Kerosene lamps are often behind burn injuries and deaths around the world, and working under those lamps is as bad for your health as smoking two packs of cigarettes a day. That's why the arrival of power lines can be so transformative. Electrification in northern El Salvador was associated with a 78percent increase in time studying and in class among school-age children and a 25percentage point increase in the likelihood of households operating a business. These businesses made on average \$1,000 a year—not bad in an area where local incomes are around \$770 per person.
- Recognizing the development impact of electricity access, the International Energy Agency (IEA) has championed the idea of "modern energy access" for all, involving universal electricity and clean cooking fuels like natural gas. The IEA claims that the additional electricity consumed by the newly connected (alongside the gas used in clean cooking) would 30 add just 0.7 percent to global greenhouse-gas emissions in 2030. In large part that's because the organization suggests energy for all would add just 1.1 percent to global energy demand.
- That's possible only because the proposed consumption levels are so low. Rich countries use 5 a lot more electricity than poor ones: According to 2011 World Bank data, the United States 35

25

10

15

consumes 13,240 kilowatt hours (kWh) per person per year, while Ethiopia consumes 56 kilowatt hours per person. The IEA suggests that 500 kWh a year for a newly connected urban household is sufficient, at least for now. This might be enough to operate a floor fan, a small refrigerator, a small TV, a couple of mobile phones, and two light bulbs. But a new large fridge in the United States can consume 500 kWh all by itself. A freezer could similarly bust the IEA household budget. And even in a comparatively chilly place like Vermont, central air conditioning for a household uses an estimated 1,125 kWh a year. Electric heating can add another 1,000-plus. Add in washing machines, fans, lighting, and a television, and usage increases further. And that's just in the home. If developing countries are going to get richer, healthier, and more educated, schools, hospitals, factories, and offices need to be powered. According to World Bank data, no country in the world with an income per capita above \$10,000 has electricity consumption below 3,880 kWh per person per year. That's nearly eight times the IEA target for a whole household.

- We should want that to happen. The UN's Sustainable Development Goals call for rapid 50 progress in income growth, employment opportunities, poverty reduction, and health and education outcomes. Electricity is a vital part of that progress. But given the central role of electricity production in climate change, that progress poses a challenge. For example: In especially hot years, economic output declines in poor countries while it does not in rich countries. One reason why: Rich countries have more air conditioners. At the same time, the impact of hot air on poor economies is one reason why the SDG climate-change goal is also important: Global warming is going to hit poor countries hardest.
- The good news is that the world's energy supply is already changing—each year boasting more production capacity for renewable energy like solar and nuclear than fossil-fuel capacity in the form of coal and gas-fired power plants. Still, meeting short-term energy demand in developing countries in a way that is climate-sustainable requires taking steps that will alarm environmental advocates. Costa Rica, for example, recently powered itself for 75 days using only renewable energy, but more than 80 percent of that power came from dams. Other countries that rely heavily on renewable energy are using nuclear power. Countries that have experienced some of the fastest declines in emissions in recent years have used fracking to increase production of natural gas, which produces less greenhouse-gas emissions than coal.
- In the long term, sustainable, reliable supplies of terawatts of energy need to be researched, developed, and scaled. Solar and wind are already playing an exciting and rapidly expanding role in powering the developing world. But countries also need electricity at night when the air is still. A group of British scientists and economists including Lords Nicholas Stern and Richard Layard have called for a "global Apollo program" to help fund the research and development of sustainable generation, storage, and smart-grid technologies, financed by 0.02 percent of global GDP.
- 9 But these technologies don't exist yet, and that is one reason why the United Nations is so mistaken in low-balling electricity demand from developing countries. The estimate implies that this energy challenge can be met with existing technologies like off-grid solar and batteries, combined with an increase in energy efficiency, and without painful choices about the use of existing technologies. The word "solar" appears 21 times in the 2014 UN 80 "Sustainable Energy for All" report, while "wind" is invoked 13 times and "energy efficiency" gets 70 mentions. "Hydro" gets only seven mentions and "dam" is avoided altogether—along with "nuclear" and "fracking."
- Those who are anti-coal, anti-gas, anti-dam, and anti-nuclear when it comes to energy development in the developing world are implying that people there shouldn't use electricity 85 at nearly the level or low price that Westerners do. This, in turn, denies people safety, security, longevity, and comfort. Pretending the technologies already exist to avoid any trade-off

75

between environmental and developmental concerns doesn't help. These technologies need to be researched and developed through robust investment, so that the climate can be sustained even as poor people around the world enjoy a better quality of life. Charles Kenny is a senior fellow at the Centre for Global Development

90

For Discussion:

- 1. Jeffrey D. Sachs, a prominent economist, asserts that sustainable development goals are best achieved through a confluence of the following factors:
- a clear objective
- an effective technology
- a clear implementation strategy
- a source of financing

Are these factors reflected in Charles Kenny's observations of renewable energy development?

2. Research Singapore's sustainable development goals that are articulated in masterplans such as the 2015 Sustainable Singapore Blueprint and the Smart Nation Vision. To what extent do they resonate with the UN's sustainable development goals? Which issues are deemed the most pressing?

For Further Reading:

A summary of the 2015 Sustainable Singapore Blueprint:

https://www.nccs.gov.sg/news/pm-unveils-sustainable-singapore-blueprint-2015-renew-strategies-liveable-and-sustainable

Related Cambridge/RI Essay Questions:

- 1. 'Environmental concerns and economic growth cannot co-exist.' What do you think? (Cambridge 2011)
- 2. Discuss the claim that in the modern world, people should care more about international than national issues. (Cambridge 2013)
- 3. 'International cooperation has not solved the global problems of today.' Do you agree? (RI Y6 CT2 2014)

The main enduring understanding for the next two readings is:

EU3: States use the transnational structures and bodies facilitated by globalisation to advance national interests, but these also create global responsibilities that need to be balanced alongside national interests.

EU4: One key trade-off resulting from globalisation is that between economic growth and environmental sustainability.

These readings will help you to:

- Keep up to speed with global cooperation efforts prior to the recent signing of the recent Paris Agreement
- Understand the significance and importance of global cooperation in addressing climate change
- The challenges of turning rhetoric into concrete, sustained action

Reading 6a: Background knowledge for why COP21 Was a Milestone for International Collaboration and Global Climate Change

EU3 & EU4

Extracted from International Relations Online (22 March 2016)

The 21st session of the Conference of the Parties, also known as COP21, took place on Dec. 7, 2015, and a new precedent was set for international cooperation toward U.N. climate negotiations. For the first time in history, all participating nations adopted a universal agreement on actions and investments aimed at cutting greenhouse gas emissions. "We have entered a new era of global cooperation on one of the most complex issues ever to confront humanity. For the first time, every country in the world has pledged to curb emissions, strengthen resilience, and join in common cause to take common climate action," U.N. Secretary-General Ban Ki-moon said in a statement released by the U.N. Climate Change Newsroom following the conference.

10 What Is the Framework Convention on Climate Change?

The U.N. Framework Convention on Climate Change (UNFCCC), which supported the conference, was originally formed in 1992 at the Rio Earth Summit to address climate change by limiting average global temperature increases. Upon its establishment, UNFCCC developed a mission to stabilize atmospheric concentrations of greenhouse gases to avoid "dangerous anthropogenic interference with the climate system" as stated by the Intergovernmental Panel on Climate Change (IPCC).

Specifically, the UNFCCC is reacting to the scientific findings confirmed by the IPCC that scientists worldwide agree that the Earth's atmosphere is growing warmer due to greenhouse gas emissions (GHGs) generated by human activity. A report from the Union of Concerned Scientists states that this threshold is estimated to be a temperature rise of 2 degrees Celsius above pre-industrial levels (i.e., prior to 1860).

What Is the COP?

5

15

20

The Conference of the Parties is an annual meeting of all the countries that are members of the UNFCCC, and the objective is to review the framework's implementation. In 2015, 195 UNFCCC member countries took part in COP21. The first COP was held in Berlin, Germany, in 1995.

25 Previous Milestones

During COP3 in 1997, the Kyoto Protocol on Climate Change was adopted, which set international emissions reductions targets of about 5 percent above pre-industrial levels by 2012. Each developed country included in the Kyoto Protocol was allotted target emissions reductions. While the Kyoto Protocol was a notable achievement, certain developing countries—including China, South Korea, Mexico, and other rapidly emerging economies—were not given targets and were even allowed to increase emissions. The Kyoto Protocol was symbolically important, but legally, it was not binding until countries representing 55 percent of global emissions had ratified it. The United States never ratified the Kyoto Protocol, and Russia ratified it after the deadline had passed. The countries that failed to meet their commitments under the Kyoto Protocol have never been sanctioned.

In 2005 during COP11, Canada hosted the first meeting of the Parties to the Kyoto Protocol in Montreal. During the meeting, the Montreal Action Plan was created as an agreement on how to phase out hydrochlorofluorocarbons (HCFCs) due to their negative effect on the ozone layer. Then, during COP15 in 2009 in Copenhagen, the world's developed countries and the biggest developing countries agreed to limits on their greenhouse gas emissions. Another significant milestone leading up to the Paris convention was COP17 held in Durban, South Africa, in 2011. There, the Green Climate Fund was adopted to provide funding for countries vulnerable to climate change to achieve their reduction goals.

Outcomes of COP21

30

45

50

65

By any measure, The 2015 Paris Climate Conference was a success. Attendance grew to 50,000 participants, including 25,000 official delegates from around the world. For the first time in history, all nations agreed to actions and investments that aim to limit the global temperature increase to 1.5 degrees Celsius above pre-industrial levels. The action plan agreed to at COP21 strengthens the collective ability of nations to deal with and address the impacts of climate change for the next decade.

"When historians look back on this day, they will say that global cooperation to secure a future safe from climate change took a dramatic new turn here in Paris," U.N. Secretary-General Ban Ki-moon said while reflecting on the significance of the international collaboration exhibited at COP21.

Now, in the months following the agreement, the focus is on implementation. To reach the ambitious and important goal, developed countries agreed to mobilize finances and increase support for poorer countries to achieve their respective reduction targets. Between now and when the agreement takes effect in 2020, countries will work to define a clear path forward.

Public discussions of the agreement are surfacing, both with resounding praise as well as skepticism. Krishneil Narayan, coordinator of the Pacific Islands Climate Action Network, which represents countries vulnerable to the impacts of climate change, commented on the agreement, saying, "Rapid action to address climate change is a matter of survival for my Pacific people and as such, how can we accept any compromises? The Paris Agreement did not reflect all we asked for ... but Paris was never meant to be the last step. It was meant to be a progressive step in identifying new common grounds to address climate change together collectively through a new, universal agreement."

Another first for COP21 is a climate agreement that applies to all countries, including large developing countries with large emissions totals like India and China. Xie Zhenhua, China's chief negotiator, was quoted by the Environment News Service, saying, "China congratulates warmly the adoption of the Paris Agreement. The agreement is not perfect ... but that does not prevent us from marching forward." While we wait to see how the agreement is put into action, what is clear is that COP21 marks a significant step forward. "The Paris Agreement allows each delegation and [country] to go back home with their heads

held high," said Laurent Fabius, president of COP21. "Our collective effort is worth more than the sum of our individual effort. Our responsibility to history is immense."

70 🗆

- The 21st session of the Conference of the Parties, also known as COP21, took place on Dec. 7, 2015, and a new precedent was set for international cooperation toward <u>U.N. climate negotiations</u>. For the first time in history, all participating nations adopted a universal agreement on actions and investments aimed at cutting greenhouse gas emissions. "We have entered a new era of global cooperation on one of the most complex issues ever to confront humanity. For the first time, every country in the world has pledged to curb emissions, strengthen resilience, and join in common cause to take common climate action," U.N. Secretary-General Ban Ki-moon said in a statement released by the <u>U.N. Climate Change Newsroom</u> following the conference.
- What Is the Framework Convention on Climate Change?

The <u>U.N. Framework Convention on Climate Change (UNFCCC)</u>, which supported the conference, was originally formed in 1992 at the Rio Earth Summit to address climate change by limiting average global temperature increases. Upon its establishment, UNFCCC developed a mission to stabilize atmospheric concentrations of greenhouse gases to avoid "dangerous anthropogenic interference with the climate system" as stated by the <u>Intergovernmental Panel on Climate Change (IPCC)</u>.

Specifically, the UNFCCC is reacting to the scientific findings confirmed by the IPCC that scientists worldwide agree that the Earth's atmosphere is growing warmer due to greenhouse gas emissions (GHGs) generated by human activity. A report from the Union of Concerned Scientists states that this threshold is estimated to be a temperature rise of 2 degrees Celsius above pre-industrial levels (i.e., prior to 1860).

3 What Is the COP?

<u>The Conference of the Parties</u> is an annual meeting of all the countries that are members of the UNFCCC, and the objective is to review the framework's implementation. In 2015, 195 UNFCCC member countries took part in COP21. The first COP was held in Berlin, Germany, in 1995.

4 Previous Milestones

During COP3 in 1997, the <u>Kyoto Protocol</u> on Climate Change was adopted, which set international emissions reductions targets of about 5 percent above pre-industrial levels by 2012. Each developed country included in the Kyoto Protocol was allotted target emissions reductions. While the Kyoto Protocol was a notable achievement, certain developing countries—including China, South Korea, Mexico, and other rapidly emerging economies—were not given targets and were even allowed to increase emissions. The Kyoto Protocol was symbolically important, but legally, it was not binding until countries representing 55 percent of global emissions had ratified it. The United States never ratified the Kyoto Protocol, and Russia ratified it after the deadline had passed. The countries that failed to meet their commitments under the Kyoto Protocol have never been sanctioned.

In 2005 during COP11, Canada hosted the first meeting of the Parties to the Kyoto Protocol in Montreal. During the meeting, the Montreal Action Plan was created as an agreement on how to phase out hydrochlorofluorocarbons (HCFCs) due to their negative effect on the ozone layer. Then, during COP15 in 2009 in Copenhagen, the world's developed countries and the biggest developing countries agreed to limits on their greenhouse gas emissions. Another significant milestone leading up to the Paris convention was COP17 held in Durban, South Africa, in 2011. There, the Green Climate Fund was adopted to provide funding for countries vulnerable to climate change to achieve their reduction goals.

10

15

25

30

Outcomes of COP21

5

5

By any measure, The <u>2015 Paris Climate Conference</u> was a success. Attendance grew to 50,000 participants, including 25,000 official delegates from around the world. For the first time in history, all nations agreed to actions and investments that aim to limit the global temperature increase to <u>1.5 degrees Celsius above pre-industrial levels</u>. The action plan agreed to at COP21 strengthens the collective ability of nations to deal with and address the impacts of climate change for the next decade.

"When historians look back on this day, they will say that global cooperation to secure a future safe from climate change took a dramatic new turn here in Paris," <u>U.N. Secretary-General Ban Ki-moon said</u> while reflecting on the significance of the international collaboration exhibited at COP21.

Now, in the months following the agreement, the focus is on implementation. To reach the ambitious and important goal, developed countries <u>agreed to mobilize finances</u> and increase support for poorer countries to achieve their respective reduction targets. Between now and when the agreement takes effect in 2020, countries will work to define a clear path forward.

Public discussions of the agreement are surfacing, both with <u>resounding praise</u> as well as skepticism. Krishneil Narayan, coordinator of the Pacific Islands Climate Action Network, which represents countries vulnerable to the impacts of climate change, <u>commented</u> on the agreement, saying, "Rapid action to address climate change is a matter of survival for my Pacific people and as such, how can we accept any compromises? The Paris Agreement did not reflect all we asked for ... but Paris was never meant to be the last step. It was meant to be a progressive step in identifying new common grounds to address climate change together collectively through a new, universal agreement."

Another first for COP21 is a climate agreement that applies to all countries, including large developing countries with large emissions totals like India and China. Xie Zhenhua, China's chief negotiator, was quoted by the Environment News Service, saying, "China congratulates warmly the adoption of the Paris Agreement. The agreement is not perfect ... but that does not prevent us from marching forward." While we wait to see how the agreement is put into action, what is clear is that COP21 marks a significant step forward. "The Paris Agreement allows each delegation and [country] to go back home with their heads held high," said Laurent Fabius, president of COP21. "Our collective effort is worth more than the sum of our individual effort. Our responsibility to history is immense."

8003

Reading 6b: The COP24 climate talks will offer little progress

Jan Piotrowski | The Economist: The World in 2018

There are reasons to be gloomy about the global climate conference in Poland.

In December 2015 world leaders gathered in Paris vowed to keep global warming "well below" 2°C compared with pre-industrial levels, and thus avert catastrophic climate change. The details, all those present agreed, would be worked out later. In 2018, the thankless work of turning lofty Parisian rhetoric into practice falls to delegates in Katowice, a city in south-west Poland, which will host the UN climate summit in 2018. The odds of success look remote, for two reasons.

The first has to do with the Paris agreement itself. The treaty left important elements deliberately vague. It did not, for instance, spell out what climate commitments by individual countries are

50

45

60

70

65

75

EU3 & EU4

admissible, how to report these "nationally determined contributions" (NDCs) or who should review them. This was necessary to get every-one on board. Developing countries would have balked at being held to rich-world standards; developed Ones would have objected to guidelines so lax as to let big polluters like China or India off the hook just because they are poor.

As a negotiating ploy, strategic fuzziness worked a treat: 195 countries signed up to the Paris deal; just two, Syria and Nicaragua, initially demurred (both have since joined). Union and America both pledged absolute cuts to greenhouse-gas emissions, but chose different base years and deadlines: 40% below 1990 levels before 2030 and 26-28% below 2005 levels before 2025, respectively. China also promised emissions cuts, of 60-65% below 2005 levels by 2030, but only relative to GDP (while adding targets for renewables and forest-planting). New Zealand's ambitious submission is a concise three pages; Pakistan's runs

Given the planet-wide nature of the 2°C goal, progress towards it must be gauged not by individual commitments but their sum total. Deft diplomacy will be needed to hammer out the common set of standards necessary for such a reckoning, just as it was to coax and cajole delegates in Paris. Indeed, given President Donald Trump's decision in June 2017 to pull America out of the agreement, even shrewder arm-twisting will be needed this time, if only to deter other potential quitters.

Sadly—and this is the second reason for scepticism about success in Katowice—Poland may not be up to the diplomatic task. In principle, the country has plenty to commend it as a venue for climate talks. This is the third time it will host the Conference of the Parties, or COP for short (fourth if you count COP5, which was held in Germany in 1999 but chaired by Poland). NDCs were first dreamt up at COP19 in Warsaw in 2013. And the country has had some success in moving from dirty industries to cleaner ones. Katowice itself is an example of the modernisation of post-communist Poland's coal country.

Cop-out in Katowice

10

15

35

40

45

Unfortunately, Poland's inherent virtues are offset by controversies surrounding its populist government. The ruling Law and Justice (PiS) party, with its "Poland first" rhetoric, makes for an awkward champion of the multilateral order on which climate consensus depends. Jan Szyszko, the environment minister who will chair the talks, is sceptical about the idea of anthropogenic climate change. PiS's declared enthusiasm for coal also sits unhappily with the goals of the Paris treaty.

Optimists cling to the hope that real progress may be made despite the Polish hosts' shortcomings, perhaps even before the summit. The next 12 months will feature a series of climate pow-wows, including a big UN conference to be held in Germany in November 2017. Perhaps most interesting will be a meeting in September 2018 planned by Jerry Brown, the unabashedly green governor of California, for like-minded American states, cities, firms and foreigners.

Those who hope to keep warming at bay will probably be disappointed, however. The UN shindig will focus on financial help for poor countries affected by climate change, not reducing the world's temperature. Mr Brown's initiative, while laudable, is an untested arena for climate talks. In any case, big political decisions invariably come in the closing hours of official UN gatherings.

All of which suggests a delay to the Paris timetable. It envisaged common standards in 2018, a revised set of more ambitious NDCs in 2020, and a systematic tally by 2023 to assess progress

towards the objective. As things stand, the first of these looks destined to be put on ice for at least a year or so, with possible knock-on effects for the other two. Earth, meanwhile, keeps heating up.

Discussion Questions:

- In the first reading, what were the key gains made in the COP21 climate talks?
- In the second reading, what are the problems the author highlights in which undermine the success of efforts to mitigate climate change?

Essay Questions:

- 1. 'The threat of global warming is exaggerated.' Is this a fair comment? (RI Y5 CT2014)
- 2. Are the concerns about the need for us to conserve the environment exaggerated? (RI Y5 Promo 2011)
- 3. International cooperation has not solved the global problems of today.' Do you agree? (RI Y6 CT2 2014)

Reading 7: Catching up with China; India and the environment The Economist | Oct 10 2015



This reading will introduce you to:

5

20

- The tensions most countries experience between achieving economic growth, human well-being, and environmental sustainability.
- How these tensions could possibly be mitigated through innovative solutions leveraging technology and human resourcefulness, or by pursuing a path which emphasizes greater sustainable development.

Every so often a country comes along whose economic transformation has a vast impact on the world's climate system. For the past generation that country has been China. Next it will be India.

Given India's size and population (1.3 billion), its emissions of carbon dioxide are in relative terms still tiny. At 1.6 tonnes of carbon per person each year, they are roughly the same as China's per-head emissions in 1980, when that country dived into economic reforms. Now India's prime minister, Narendra Modi, wants to emulate China's sizzling growth. He has set India a target of expanding GDP by 8% a year. If it comes close to meeting that target, emissions will soar, just as China's have done. Today, Chinese emissions per head are four times those in India.

- Government planners think that, with economic growth of 8-9%, India's total emissions of carbon dioxide would more than triple by 2030, from 1.7 billion tonnes in 2010 to 5.3 billion tonnes. Per-head emissions would increase to 3.6 tonnes. And that assumes a fair amount of energy savings. If India were to use the same amount of energy per unit of GDP in 2030 as it does now, then emissions would top 6 billion tonnes by 2030. India is on the way to becoming the biggest contributor to increases in greenhouse gases within 15 years--a powerful reason for caring about its progress on environmental matters.
- On October 1st Mr Modi's government filed its emissions plans in advance of a UN climate conference to take place in Paris in November. Unlike most other big countries, India refused to set a date at which the absolute amount of carbon it pumps out would peak and start to fall. Instead it promised that its carbon intensity--that is, carbon emissions per unit of GDP--would fall by a third before 2030.
 - By setting a relative rather than an absolute target, India has come in for criticism. That is unfair, for to cap emissions would be to deny many Indians the chance to better their hard lives. The country has more poor

40

55

people than anywhere else in the world: 230m living on \$1.90 a day or less--the World Bank's definition of extreme poverty. Almost half of rural households, or 250m-300m people, have no electricity. For the poor, growth is essential--and carbon comes with it.

Yet to accept that is not to give up on curbing emissions. India has huge potential to change its trajectory.

To put this in context, consider that plans announced by Barack Obama's administration would cut American emissions by 26-28% by 2025, or just under 2 billion tonnes of carbon a year. By contrast, the difference between a good and a bad outcome in India over the same period, depending on whether good policies are adopted or not, would amount to almost 3 billion tonnes. In other words, India could do more good for the climate, as well as more harm, than most.

30 If there is reason to be optimistic, it is that the environment matters to Indians themselves. Thirteen of the world's 20 most-polluted cities are in the subcontinent. Smoke from cooking with wood or dung in Indian homes may be responsible for 500,000 early deaths a year, mostly of women and children. Climate change could do grave harm to India. Some two-thirds of its agriculture depends on the monsoon, which may become less reliable as a result of global warming. Some Himalayan glaciers are retreating, sending less water to rivers that feed hundreds of millions of people downstream. A quarter of Indians live near coasts that are vulnerable to sea-level rises. Many countries suffer one or more of these problems. Few have all of them. So while Indians need growth, they cannot ignore the consequences of it.

Given the environmental pressures, gloom is not hard to find. Jairam Ramesh, environment minister in the previous Congress-led government, shakes his head as he reflects on the near-total local opposition to a plan to protect the Western Ghats, a mountain range that is one of the world's most biologically diverse regions. "We are losing the battle of ideas," he says. Although tree plantations are growing in India, old-growth forests are still shrinking. Pressure to cut down more trees will increase because most of India's untapped coal reserves are underneath its forests. Coal accounts for more than half of India's power generation--and India plans to double coal output by 2020.

As for water, another crucial environmental resource, for the moment India is one of the lucky large developing countries with adequate supplies. But according to a study in 2013 by two UN agencies, it will go from having 1,800 cubic metres of water per person per year in 2001 to only 1,340 cubic metres in 2025--and little more than 1,000 cubic metres per head by 2050, which is the international definition of water scarcity.

As if all that were not enough, Mr Modi came to power in 2014 vowing to sweep aside regulatory obstacles to growth (including, by implication, environmental regulations). He vowed to expand a manufacturing sector which, at 17% of GDP, is half the relative size of China's. Factories pollute more than services do.

If India faces a trade-off between growth and greenery, then the only likely outcome is that growth wins. Yet it is not a simple swap. Rather, the government has multiple objectives, and this multiplicity makes pro-environment policies more likely to stick.

To see how, look at energy. The government has four main goals beyond increasing power to cities and industry. First, it wants to bring electricity to those without it. Total electricity production has risen sharply in recent years, but the number of people without power has fallen only slowly. Something needs to change.

Next, India wants to improve its energy security by buying less from abroad. At the moment, the country spends about half its foreign-exchange earnings on fuel imports, an unusually high share. Though the world's third-largest coal producer, India imports a fifth of its coal because domestic mines cannot keep pace. And it imports four-fifths of its oil. That leaves the country vulnerable to oil shocks, even if right now it is a beneficiary of cheaper supplies.

65

70

75

80

85

90

95

100

105

Third, with 10m-12m young Indians entering the labour market each year, the country needs jobs, and factories without power are no way to create them. And lastly India needs to reform the inefficient electricity-distribution system. Blackouts and brownouts are rife, and almost all the state utilities are bankrupt.

India needs to do all these things regardless of environmental considerations. But research by the Centre for the Study of Science, Technology and Policy (C-STEP), a think-tank in Bangalore, suggests that the energy mix you get if you try to improve access, security and so on is similar to what you get if you just concentrate on cutting carbon and preventing deforestation. In other words, the trade-off between doing the right thing for the economy and the right thing for the environment is not as stark as it looks.

Again, the energy sector shows why. Given the atrocious quality of the electricity grid, the quickest way to improve energy access is to supply power away from the grid through "distributed energy"--things like solar panels on houses or a micro-grid for a particular village linked, say, to a wind turbine. Distributed energy can use various sources of power, but renewable energy is particularly suited to it. Providing villages with reliable energy would allow families to switch from burning wood and dung to electric stoves, saving many of the lives now cut short by filthy air.

Solar and wind power are domestic energy supplies, so they help conserve foreign exchange. Import substitution is usually a bad idea, because it keeps prices high and makes producers lazy. But in many parts of the country solar and wind are competitive on price. Electricity from power stations that run on imported coal costs about 6 rupees (9 cents) per kilowatt-hour. In Karnataka state, in the south, new providers of solar power are selling it for 5.5 rupees per kilowatt-hour, while wind costs about 6 rupees per kilowatt-hour. The solar business also provides jobs, typically more than from generating power through burning fossil fuels. Arunabha Ghosh of the Council on Energy, Environment and Water, a think-tank in Delhi, the capital, reckons that building 100 gigawatts of solar capacity would produce 1m jobs, albeit most of them short-term.

Lastly, alternative forms of energy might even help solve those problems of the grid which have their roots in India's unwise decision to supply farmers with free electricity to pump water for irrigation. A huge lobby for subsidised power exists as a consequence, along with neglect of the electricity infrastructure, the beggaring of utility companies, which lost a staggering \$300 billion in 2012, and a catastrophic overuse of water for farming. Because pumping water is in effect free, farmers are using groundwater faster than it can be replenished. In north-west India states are withdrawing up to nearly three times more water from aquifers than is being recharged by rains. The perversities of the power sector damage many parts of economy. So expanding solar and wind power could help with a range of things that have little to do with the environment but are essential for other reasons. That is the main justification for thinking greenery can take off even in a country that is trying to grow as fast as it can.

But the big questions are whether India's environmental policies are the right ones and whether they will be overwhelmed by the demands of growth. The government's signature policies are a huge expansion in solar and wind power, a sketchy "100 smart cities" plan to improve urban design and infrastructure, and a "clean-up India" campaign which includes everything from better waste management to building over 100m lavatories (about half of Indians defecate in the open--an environmental crisis in its own right, since it causes a panoply of diseases).

Soon after coming to office, Mr Modi promised to increase renewable energy more than fivefold by 2022. This would require doubling solar capacity every 18 months for the next seven years and cost about \$100 billion. At a big conference on renewable energy earlier this year, investors said they would be happy to build all that and more, but they made financial commitments to less than a third of their proposals. Mr Modi's plan would save perhaps 170m tonnes of carbon a year compared with adding the same amount

of power using the current energy mix. At about 3% of emissions forecast for 2030, that is something, but not a huge amount.

More important are a number of actions that usually get short shrift when talking about climate policies. A study by the Lawrence Berkeley National Laboratory at the University of California calculates that if India switched to using the most efficient air conditioners, with the least-polluting refrigerants, it would save over 300m tonnes of carbon a year compared with expanding sales of current air conditioners--twice as much as the savings from solar power. India's programme to subsidise the replacement of 400m cheap incandescent light bulbs with dearer LED ones would save 6,000 megawatts of installed capacity-equivalent to the entire electricity-generating capacity of Nigeria.

As for urbanisation, India has a "last mover" advantage. Perhaps seven-tenths of the urban infrastructure that it will need in 2030--such as roads, buildings and sewers--has yet to be built. In the meantime, India can learn from the lessons of others as they grow. Building compact cities with efficient transport systems and non-wasteful buildings would go a long way to slowing the rise of emissions.

Greenish India

115

120

So how much would all that achieve? Using varying assumptions about future policies and actions, five Indian forecasting groups predicted that emissions in 2030 could be between 3 billion tonnes and 5 billion tonnes a year, compared with a range of 4 billion tonnes to 5.5 billion tonnes on current trends. It is a significant difference, but not a huge one. According to C-STEP, the think-tank in Bangalore, it would be possible to cut emissions by a further 20-30% through more drastic actions, such as having four-fifths of lighting from LED bulbs by 2030 and sending half of all freight by rail instead of road rather than 39%, as is planned. That really might help India avoid the pattern of "grow first, clean up later".

India has shown that it can enact reforms that have a big environmental impact. In the past two years, for example, it has removed a subsidy on diesel consumption (which subsidised carbon), and replaced subsidised liquefied natural gas with a cash payment for the poor, encouraging people to use gas less wastefully.

India's emissions are still too modest for it to rival China anytime soon. Modest, too, are its manufacturing sector and middle class, both big polluters. As always, India will go its own sweet way. But it could do more to make that way greener.

For Discussion and Reflection

- 1. To develop the economy, does the environment have to take a backseat?
- 2. What are the obstacles hindering a state's prioritisation of its environmental problems?
- 3. Should lesser developed countries and emerging economies be excused from looking into environmental problems?

Essay Questions

- 1. In your society, how well are the demands of the economy and the environment balanced? (Cambridge 2015)
- 2. Should there be any controls over the production of energy when the need for it is so great? (Cambridge 2015)
- 3. Discuss the view that, with an increasing global need for energy, every possible source should be exploited to the full. (Cambridge 2014)
- 4. 'Environmental concerns and economic growth cannot co-exist.' Do you agree? (Cambridge 2011)

Reading 8a: Factsheet on the Faces of Poverty

Extracted from www.unmillenniumproject.org



The main enduring understanding for this reading is:

EU5: Another consequence is that while globalisation has generated wealth, uneven distribution of both resources and growth has contributed to poverty and inequality.

This reading will help you:

 Recognise the scale of poverty that exists in the world today and those who are disproportionately harmed by it (despite the benefits globalisation has brought to the rest of the world)

More than **one billion people** in the world live on **less than one dollar a day**. Another 2.7 billion struggle to survive on less than two dollars per day. Poverty in the developing world, however, goes far beyond income poverty. It means having to walk more than one mile everyday simply to collect water and firewood; it means suffering diseases that were eradicated from rich countries decades ago. Every year **eleven million children die**—most under the age of five and more than six million from **completely preventable** causes like malaria, diarrhoea and pneumonia. In some deeply impoverished nations less than half of the children are in primary school and under 20 percent go to secondary school. Around the world, a total of **114 million children** do not get even a basic education and **584 million women are illiterate**.

Following are basic facts outlining the roots and manifestations of the poverty affecting more than one third of our world.

Health

- Every year six million children die from malnutrition before their fifth birthday.
- More than 50 percent of Africans suffer from water-related diseases such as cholera and infant diarrhoea.
- Everyday HIV/AIDS kills 6,000 people and another 8,200 people are infected with this deadly virus.
- Every 30 seconds an African child dies of malaria—more than one million child deaths a year.
- Each year, approximately **300 to 500 million** people are infected with malaria. Approximately three million people die as a result.
- TB is the leading AIDS-related killer and in some parts of Africa, 75 percent of people with HIV also have TB.

Hunger

- More than **800 million people** go to bed hungry every day...300 million are children.
- Of these 300 million children, only eight percent are victims of famine or other emergency situations. More than 90 percent are suffering long-term malnourishment and micronutrient deficiency.
- Every 3.6 seconds another person dies of starvation and the large majority are children under the age of 5.

Water

- More than **2.6 billion people**—over 40 per cent of the world's population—do not have basic sanitation, and more than one billion people still use unsafe sources of drinking water.
- Four out of every ten people in the world don't have access even to a simple latrine.
- Five million people, mostly children, die each year from water-borne diseases.

Agriculture

• In 1960, Africa was a net exporter of food; today the continent **imports one-third of its grain**.

- More than 40 percent of Africans do not even have the ability to obtain sufficient food on a day-today basis.
- Declining soil fertility, land degradation, and the AIDS pandemic have led to a 23 percent decrease in food production per capita in the last 25 years even though population has increased dramatically.
- For the African farmer, conventional fertilizers cost two to six times more than the world market price.

The devastating effect of poverty on women

- Above **80 percent** of farmers in Africa are women.
- More than 40 percent of women in Africa do not have access to basic education.
- If a girl is educated for six years or more, as an adult her prenatal care, postnatal care and **childbirth survival rates**, will dramatically and consistently **improve**.
- Educated mothers immunize their children **50 percent more** often than mothers who are not educated.
- AIDS spreads twice as quickly among uneducated girls than among girls that have even some schooling.
- The children of a woman with five years of primary school education have a survival rate 40 percent higher than children of women with no education.
- A woman living in sub-Saharan Africa has a **1 in 16 chance of dying** in pregnancy or childbirth. This compares with a **1 in 3,700 risk** for a woman from North America.
- Every minute, a woman somewhere dies in pregnancy or childbirth. This adds up to 1,400 women dying each day—an estimated 529,000 each year—from pregnancy-related causes.
- Almost half of births in developing countries take place without the help of a skilled birth attendant.

R)(%

Reading 8b(i) and (ii): Combatting Global Poverty with Education

EU3 and EU5

The main enduring understandings for this reading is:

EU3: States use the transnational structures and bodies facilitated by globalisation to advance national interests, but these also create global responsibilities that need to be balanced alongside national interests.

EU5: Another consequence [of globalisation] is that while globalisation has generated wealth, uneven distribution of both resources and growth has contributed to poverty and inequality.

These reading will help you to:

- Recognise the benefits of education in equipping individuals of all ages with skills and knowledge needed to be productive and successful global citizens
- See education as a potential means of addressing and eradicating global poverty.

8b(i) Global Companies Spending Millions on Education

Excerpt from article by Bruce Watson | The Guardian | Jan 2015

The sheer number of worthy issues that deserve corporate attention and investment can often seem endless. There's infrastructure, health, food, clean water and much, much more. In this context, it's perhaps easy to understand why education, key to pulling people out of poverty, often falls by the wayside.

Global education faces an annual budgetary shortfall of \$26bn, according to Unesco. While governments, foundations and nonprofits can help with various aspects of this problem, education spending is certainly also a business issue. After all, educated workers are better equipped to become gainful employees – and

profitable consumers. But education spending among the world's largest companies isn't nearly enough to meet the shortfall.

10

15

From 2011 to 2013, Fortune Global 500 companies spent \$2.6bn on education annually, \$1bn of which went to hardest-hit areas such as the Asia Pacific, Africa and Latin America, according to a study released by the Varkey Foundation on Wednesday. These companies spent 13% of their corporate social responsibility (CSR) contributions – and 10.4% of their grants – on education. Those funds were closely connected to the companies' immediate interests. Businesses tend to spend the majority of their money in their host countries, followed by projects in countries connected to their supply chains.

Here are the top 5 companies that are spending their sustainability budgets on education:

1. Banco Santander

Educational spending: \$196.5m Percent of CSR budget: 79%

Noteworthy program: Among its other programs, Spanish-based Banco Santander was involved in the Becalos project, which gave ATM users the option of donating 5 pesos to education – and then matched the funds. In 2012, Santander customers donated \$15.9m.

2. IBM

Educational spending: \$144m Percent of CSR budget: 72%

Noteworthy program: One of IBM's programs, KidSmart early learning, is a partnership with the United Way, the Bank Street College of Education and the Center for Children and Technology. It aims to use technology to help beginning students around the globe.

3. Telefonica

Educational spending: \$129.9m Percent of CSR budget: 65%

Noteworthy program: Spanish-based telecommunications provider Telefonica's EducaRed portal is designed to integrate information technologies into classrooms around the globe.

4. ExxonMobil

Educational spending: \$115.5m Percent of CSR budget: 39%

Noteworthy program: US-based ExxonMobil was a founding sponsor of the National Math and Science Initiative, which works to improve math and science education in the US.

5. Target

Educational spending: \$95.2m Percent of CSR budget: 37%

Noteworthy program: In 2015, US-based Target plans to spend \$1bn on education - double its 2009

contribution.

8b(ii). Benefits of Education That Combat Global Poverty

Lauren Lewis | Global Education | 5 February 2016

The following are eight benefits of education that help to combat global poverty:

1. Education Raises Literacy Levels

Illiteracy is a cycle which reinforces long-term poverty levels throughout generations. Individuals living in poverty are often prevented from entering educational settings. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), a 12 percent drop in global poverty could be

5 achieved if each student within low-income countries received basic reading and literacy skills by the time they left school.

2. Education Increases Income and Wealth Creation

Increased education levels directly give individuals the necessary skills to increase their income level. Each extra year of schooling a child receives increases that student's earnings by up to 10 percent, according to UNESCO.

Education also boosts the income levels and amount of food farmers produce on their land by giving them the necessary information to cultivate cash crops or follow other measures that may raise their cultivation levels.

3. Education Helps Reduce Instability and Corruption

According to the Global Partnership for Education, 36 percent of children worldwide who are not receiving education live in areas of conflict. This lack of opportunity damages their ability to find employment once the conflict ceases. Education promotes stable and peaceful societies that are capable of development.

4. Education Promotes Healthier Lives

10

30

50

Education and awareness give individuals the tools they need to take control over their health choices.

Education is also important for the containment of communicable diseases. According to the World Health Service, an individual who has completed a lower secondary school education has poor health 18 percent less than individuals with no education. Prevention programs help to fight the transmission of diseases within affected communities and reduce mother/infant mortality rates. UNESCO reported a mother who is literate is 23 percent more likely to give birth with the help of a skilled attendant or midwife. Further, children born to literate mothers are also 50 percent more likely to live past the age of five.

5. Education Empowers Females

The benefits of female education are not limited to childbirth. When women receive educational opportunities they have greater abilities to generate income, their families are healthier, they raise fewer children and get married at older ages, thereby averting child marriages. Educating mothers is integral for the societies they belong to. Over the last four decades, around four million child deaths have been prevented due to an increase in female education according to a study funded by the Bill and Melinda Gates Foundation posted in The Lancet journal.

6. Education, Food Security and Nutrition

Poor nutrition affects brain development and the ability to learn for individuals living within poverty stricken areas. According to UNESCO, 1.7 million fewer children would suffer from stunting, a sign of malnutrition, if all women completed primary education levels. Education also contributes to a more varied diet which reduces the prevalence of malnutrition.

7. Education and the Development of Technical Skills

With increased levels of education, a country's residents will be more likely to gain knowledge of technical skills creating employment opportunities in fields such as agriculture, construction, technologies and transportation. The development of infrastructure gives children living in remote areas the ability to reach school facilities more easily, raising educational levels within that particular area.

8. Education Boosts Economic Growth

Education promotes and fuels productivity gains that boost economic growth within countries. As reported by the United States Agency for International Development, increasing the average level of education in a country by one year can increase the annual gross domestic product of that nation by half a percentage point.

Sources: UNESCO 1, UNESCO 2, UNESCO 3, UNESCO 4, USAID, Global Partnership For Education 1, Global Partnership For Education 2, The Lancet, The World Bank

For Discussion:

- 1. Consider the range of possible motivations leading corporations to channel money towards global education.
- 2. In your view, is promoting corporate social responsibility the best way to reduce poverty? Why or why not?

Related Cambridge/RI essay questions:

- 1. 'Eradicating poverty is a battle we have no chance of winning.' Do you agree? (RI Y5 Promo 2016)
- 2. To what extent can international aid be truly effective? (RI Y6 CT2 2010)

Reading 8c(i): Why Foreign Aid is Hurting Africa

by Dambisa Moyo (Wall Street Journal, 21 Mar 2009)



The main enduring understandings for this reading is:

EU5: Another consequence (of globalisation) is that while globalisation has generated wealth, uneven distribution of both resources and growth has contributed to poverty and inequality.

This reading will help you to:

- Recognise how money from rich countries has trapped many African nations in a cycle of corruption, slower economic growth and poverty.
- Understand that the foreign aid failures described are real and frustrating, and they underscore
 why it's important to wrestle with the flaws in foreign policy and the issues that critics of
 developmental aid raise.
 - A month ago I visited Kibera, the largest slum in Africa. This suburb of Nairobi, the capital of Kenya, is home to more than one million people, who eke out a living in an area of about one square mile -- roughly 75% the size of New York's Central Park. It is a sea of aluminum and cardboard shacks that forgotten families call home. The idea of a slum conjures up an image of children playing amidst piles of garbage, with no running water and the rank, rife stench of sewage. Kibera does not disappoint.

5

What is incredibly disappointing is the fact that just a few yards from Kibera stands the headquarters of the United Nations' agency for human settlements which, with an annual budget of millions of dollars, is mandated to "promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all." Kibera festers in Kenya, a country that has one of the highest ratios of development workers per capita. This is also the country where in 2004, British envoy Sir Edward Clay apologized for underestimating the scale of government corruption and failing to speak out earlier.

15

10

Giving alms to Africa remains one of the biggest ideas of our time -- millions march for it, governments are judged by it, celebrities proselytize the need for it. Calls for more aid to Africa are growing louder, with advocates pushing for doubling the roughly \$50 billion of international assistance that already goes to Africa each year.

20

Yet evidence overwhelmingly demonstrates that aid to Africa has made the poor poorer, and the growth slower. The insidious aid culture has left African countries more debt-laden, more inflation-prone, more vulnerable to the vagaries of the currency markets and more unattractive to higher-quality investment. It's increased the risk of civil conflict and unrest (the fact that over 60% of sub-Saharan Africa's population is under the age of 24 with few economic prospects is a cause for worry). Aid is an unmitigated political, economic and humanitarian disaster.

25

Few will deny that there is a clear moral imperative for humanitarian and charity-based aid to step in when necessary, such as during the 2004 tsunami in Asia. Nevertheless, it's worth reminding ourselves what emergency and charity-based aid can and cannot do. Aid-supported scholarships have certainly helped send African girls to school (never mind that they won't be able to find a job in their own countries once they have graduated). This kind of aid can provide band-aid solutions to alleviate immediate suffering, but by its very nature cannot be the platform for long-term sustainable growth.

30

- 6 Whatever its strengths and weaknesses, such charity-based aid is relatively small 35 beer when compared to the sea of money that floods Africa each year in government-to-government aid or aid from large development institutions such as the World Bank. 7 Over the past 60 years at least \$1 trillion of development-related aid has been transferred from rich countries to Africa. Yet real per-capita income today is lower 40 than it was in the 1970s, and more than 50% of the population -- over 350 million people -- live on less than a dollar a day, a figure that has nearly doubled in two decades. 8 Even after the very aggressive debt-relief campaigns in the 1990s, African countries still pay close to \$20 billion in debt repayments per annum, a stark reminder that aid 45 is not free. In order to keep the system going, debt is repaid at the expense of African education and health care. Well-meaning calls to cancel debt mean little when the cancellation is met with the fresh infusion of aid, and the vicious cycle starts up once again. 9 In 2005, just weeks ahead of a G8 conference that had Africa at the top of its 50 agenda, the International Monetary Fund published a report entitled "Aid Will Not Lift Growth in Africa." The report cautioned that governments, donors and campaigners should be more modest in their claims that increased aid will solve Africa's problems. Despite such comments, no serious efforts have been made to wean Africa off this debilitating drug. 55 The most obvious criticism of aid is its links to rampant corruption. Aid flows destined to help the average African end up supporting bloated bureaucracies in the form of the poor-country governments and donor-funded non-governmental organizations. In a hearing before the U.S. Senate Committee on Foreign Relations in May 2004, Jeffrey Winters, a professor at Northwestern University, argued that the World Bank 60 had participated in the corruption of roughly \$100 billion of its loan funds intended for development. As recently as 2002, the African Union, an organization of African nations, estimated that corruption was costing the continent \$150 billion a year, as international donors were apparently turning a blind eye to the simple fact that aid money was 65 inadvertently fueling graft. With few or no strings attached, it has been all too easy for the funds to be used for anything, save the developmental purpose for which they were intended.
 - In Zaire -- known today as the Democratic Republic of Congo -- Irwin Blumenthal (whom the IMF had appointed to a post in the country's central bank) warned in 1978 that the system was so corrupt that there was "no (repeat, no) prospect for Zaire's creditors to get their money back." Still, the IMF soon gave the country the largest loan it had ever given an African nation. According to corruption watchdog agency Transparency International, Mobutu Sese Seko, Zaire's president from 1965 to 1997, is reputed to have stolen at least \$5 billion from the country.
 - 13 It's scarcely better today. A month ago, Malawi's former President Bakili Muluzi was charged with embezzling aid money worth \$12 million. Zambia's former President Frederick Chiluba (a development darling during his 1991 to 2001 tenure) remains embroiled in a court case that has revealed millions of dollars frittered away from health, education and infrastructure toward his personal cash dispenser. Yet the aid keeps on coming.

70

75

80

A nascent economy needs a transparent and accountable government and an efficient civil service to help meet social needs. Its people need jobs and a belief in their country's future. A surfeit of aid has been shown to be unable to help achieve 85 these goals. A constant stream of "free" money is a perfect way to keep an inefficient or simply bad government in power. As aid flows in, there is nothing more for the government to do -- it doesn't need to raise taxes, and as long as it pays the army, it doesn't have to take account of its disgruntled citizens. No matter that its citizens are disenfranchised (as with no taxation there can be no representation). All the 90 government really needs to do is to court and cater to its foreign donors to stay in power. Stuck in an aid world of no incentives, there is no reason for governments to seek other, better, more transparent ways of raising development finance (such as accessing the bond market, despite how hard that might be). The aid system 95 encourages poor-country governments to pick up the phone and ask the donor agencies for next capital infusion. It is no wonder that across Africa, over 70% of the public purse comes from foreign aid. In Ethiopia, where aid constitutes more than 90% of the government budget, a mere 2% of the country's population has access to mobile phones. (The African country 100 average is around 30%.) Might it not be preferable for the government to earn money by selling its mobile phone license, thereby generating much-needed development income and also providing its citizens with telephone service that could, in turn, spur economic activity? Look what has happened in Ghana, a country where after decades of military rule 105 brought about by a coup, a pro-market government has yielded encouraging developments. Farmers and fishermen now use mobile phones to communicate with their agents and customers across the country to find out where prices are most competitive. This translates into numerous opportunities for self-sustainability and income generation -- which, with encouragement, could be easily replicated across 110 the continent. To advance a country's economic prospects, governments need efficient civil service. But civil service is naturally prone to bureaucracy, and there is always the incipient danger of self-serving cronyism and the desire to bind citizens in endless, time-consuming red tape. What aid does is to make that danger a grim reality. This 115 helps to explain why doing business across much of Africa is a nightmare. In Cameroon, it takes a potential investor around 426 days to perform 15 procedures to gain a business license. What entrepreneur wants to spend 119 days filling out forms to start a business in Angola? He's much more likely to consider the U.S. (40 days and 19 procedures) or South Korea (17 days and 10 procedures). 120 Even what may appear as a benign intervention on the surface can have damning consequences. Say there is a mosquito-net maker in small-town Africa. Say he employs 10 people who together manufacture 500 nets a week. Typically, these 10 employees support upward of 15 relatives each. A Western government-inspired program generously supplies the affected region with 100,000 free mosquito nets. 125 This promptly puts the mosquito net manufacturer out of business, and now his 10 employees can no longer support their 150 dependents. In a couple of years, most of the donated nets will be torn and useless, but now there is no mosquito net maker to go to. They'll have to get more aid. And African governments once again get to abdicate their responsibilities. 130

In a similar vein has been the approach to food aid, which historically has done little to support African farmers. Under the auspices of the U.S. Food for Peace program, each year millions of dollars are used to buy American-grown food that has to then be shipped across oceans. One wonders how a system of flooding foreign markets with American food, which puts local farmers out of business, actually helps better 135 Africa. A better strategy would be to use aid money to buy food from farmers within the country, and then distribute that food to the local citizens in need. Then there is the issue of "Dutch disease," a term that describes how large inflows of money can kill off a country's export sector, by driving up home prices and thus making their goods too expensive for export. Aid has the same effect. Large dollar-140 denominated aid windfalls that envelop fragile developing economies cause the domestic currency to strengthen against foreign currencies. This is catastrophic for jobs in the poor country where people's livelihoods depend on being relatively competitive in the global market. 23 To fight aid-induced inflation, countries have to issue bonds to soak up the 145 subsequent glut of money swamping the economy. In 2005, for example, Uganda was forced to issue such bonds to mop up excess liquidity to the tune of \$700 million. The interest payments alone on this were a staggering \$110 million, to be paid annually. 24 The stigma associated with countries relying on aid should also not be 150 underestimated or ignored. It is the rare investor that wants to risk money in a country that is unable to stand on its own feet and manage its own affairs in a sustainable way. Africa remains the most unstable continent in the world, beset by civil strife and war. Since 1996. 11 countries have been embroiled in civil wars. According to the 155 Stockholm International Peace Research Institute, in the 1990s, Africa had more wars than the rest of the world combined. Although my country, Zambia, has not had the unfortunate experience of an outright civil war, growing up I experienced first-hand the discomfort of living under curfew (where everyone had to be in their homes between 6 p.m. and 6 a.m., which meant racing from work and school) and 160 faced the fear of the uncertain outcomes of an attempted coup in 1991 -- sadly, experiences not uncommon to many Africans. Civil clashes are often motivated by the knowledge that by seizing the seat of power, the victor gains virtually unfettered access to the package of aid that comes with it. In the last few months alone, there have been at least three political upheavals 165 across the continent, in Mauritania, Guinea and Guinea Bissau (each of which remains reliant on foreign aid). Madagascar's government was just overthrown in a coup this past week. The ongoing political volatility across the continent serves as a reminder that aid-financed efforts to force-feed democracy to economies facing ever-growing poverty and difficult economic prospects remain, at best, precariously 170 vulnerable. Long-term political success can only be achieved once a solid economic trajectory has been established. Proponents of aid are quick to argue that the \$13 billion (\$100 billion in today's terms) aid of the post-World War II Marshall Plan helped pull back a broken Europe from the brink of an economic abyss, and that aid could work, and would work, if 175

Africa had a good policy environment.

The aid advocates skirt over the point that the Marshall Plan interventions were short, sharp and finite, unlike the open-ended commitments which imbue governments with a sense of entitlement rather than encouraging innovation. And aid supporters spend little time addressing the mystery of why a country in good working order would seek aid rather than other, better forms of financing. No country has ever achieved economic success by depending on aid to the degree that many African countries do.

180

29 The good news is we know what works; what delivers growth and reduces poverty. We know that economies that rely on open-ended commitments of aid almost universally fail, and those that do not depend on aid succeed. The latter is true for economically successful countries such as China and India, and even closer to home, in South Africa and Botswana. Their strategy of development finance emphasizes the important role of entrepreneurship and markets over a staid aid-system of development that preaches hand-outs.

185

190

African countries could start by issuing bonds to raise cash. To be sure, the traditional capital markets of the U.S. and Europe remain challenging. However, African countries could explore opportunities to raise capital in more non-traditional markets such as the Middle East and China (whose foreign exchange reserves are more than \$4 trillion). Moreover, the current market malaise provides an opening for African countries to focus on acquiring credit ratings (a prerequisite to accessing the bond markets), and preparing themselves for the time when the capital markets return to some semblance of normalcy.

195

31 Governments need to attract more foreign direct investment by creating attractive tax structures and reducing the red tape and complex regulations for businesses. African nations should also focus on increasing trade; China is one promising partner. And Western countries can help by cutting off the cycle of giving something for nothing. It's time for a change.

200

5 Reading 8c(ii): The Case for Aid

by Jeffrey Sachs (Foreign Policy, 21 January 2014)

This article will help you to:

5

10

 Understand the compelling case for aid and why how it brings about benefits to developing countries

I have long believed in foreign aid as one tool of economic development. This is not an easy position to maintain, especially in the United States, where public misunderstanding, politics, and ideology all tend to keep aid an object of contempt for many people. Yet the recent evidence shows that development aid, when properly designed and delivered, works, saving the lives of the poor and helping to promote economic growth. Indeed, based on this evidence, Bill and Melinda Gates released a powerful letter to the public today also underscoring the importance and efficacy of foreign aid.

As experience demonstrates, it is possible to use our reason, management know-how, technology, and learning by doing to design highly effective aid programs that save lives and promote development. This should be done in global collaboration with national and local communities, taking local circumstances into account. The evidence bears out this approach.

Of course, I do not believe that aid is the sole or main driver of economic development. I do not believe that aid is automatically effective. Nor should we condone bad governance in Africa -- or in Washington, for that matter. Aid is one development tool among several; it works best in conjunction with sound economic policies, transparency, good governance, and the effective deployment of new technologies.

Professor William Easterly of New York University has long been a vocal opponent of aid, and recently declared that the aid debate was "over," claiming victory for his theory that large-scale aid projects are doomed to fail. This blanket claim flies in the face of recent experience. Prof. Easterly has been proven wrong in both diagnosis and prescription.

During the past 13 years, the greatest breakthroughs in aid quantity and quality came from the field of public health (unlike other social sectors, such as education and sanitation, where aid increases were far less notable). As a result, the outcomes in public health in poor countries have also advanced markedly. Not only did aid quantities for public health improve; new public health institutions, such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the Global Alliance for Vaccines and Immunization, were created to promote the effective delivery of the increased aid.

The approach of increased aid that is well-targeted through innovative institutions has been enormously successful in improving public health in low-income countries. One could cite many examples ranging from the scale-up of vaccine coverage (largely through GAVI and UNICEF) to increased treatment coverage for HIV/AIDS and expanded tuberculosis control (through the Global Fund and the U.S. PEPFAR program), but I will focus specifically on malaria control, since Prof. Easterly was particularly pointed in his opposition to the mass scale-up of malaria control that has proved to be so successful. Fortunately, the global community did not heed Easterly's erroneous advice, and followed a path that the public health community strongly advocated.

At the turn of the new century, malaria was front and center of the global aid debate. Research by myself and others, and evidence garnered in the report of the World Health Organization (WHO) Commission on Macroeconomics and Health that I had the honor to chair, showed that in addition to being a health catastrophe, malaria imposes a significant economic burden, particularly in sub-Saharan Africa. Luckily, though, the world was starting to take notice. In 2000, the U.N. Millennium Declaration, The African Summit on Malaria, and the G8 Declaration all addressed the burden of malaria and committed the world to action. The debate soon turned to the issue of policy: how could the malaria burden be reduced?

35

Here we must look at some key details in order to keep aid in careful perspective. Starting in the late 1990s, malariologists at WHO, in academia, and in various government agencies around the world, described how malaria control could be made highly effective. The malariologists emphasized the ability of insecticide-treated bed nets to reduce the transmission of the disease. They also emphasized the urgency of shifting to a new generation of first-line medicines, notably those using artemisinin (a powerful antimalaria drug developed by Chinese scientists) in combination with other medicines, because the old-line medicines (mainly chloroquine) were losing efficacy to growing drug resistance. The combination of bed nets and effective medicines (known in the jargon as "vector control" and "case management" respectively), supported by rapid diagnosis of infections, makes for a powerful one-two punch in saving lives and reducing malaria transmission.

Indeed, epidemiological theory and practical experience strongly suggested that if bed net coverage could be raised to a sufficiently high rate (typically around three-quarters, depending on local conditions), the transmission of malaria would be sharply reduced even for those not directly protected by their own bed nets. The "spillover" of protection to the non-users is called a mass-action effect, similar to the way that

55

60

65

70

75

80

85

90

95

high vaccine coverage protects even unvaccinated people because the disease stops spreading when fewer people are susceptible to infection. This mass-action phenomenon of course strongly argued for a malaria control strategy that would lead to a high level of bed net coverage.

There was one more detail of great policy significance: Not all bed nets are equal. The high-quality bed nets work not only mechanically (by covering the body) but also chemically, by a treatment with insecticide that repels or kills mosquitoes that land on the bed net. A bed net without insecticide treatment is far less effective than a treated net. Until the early 2000s, bed nets required frequent retreatment with insecticide (e.g. by bathing the nets in tubs filled with insecticide) in order to remain effective. Then, Sumitomo Chemical developed long-lasting insecticide-treated nets (LLINs) that were specially engineered to keep the insecticide intact even when the nets were repeatedly washed. The new nets could therefore remain effective for around five years or even more. Other companies, such as Vestergaard and BASF, also developed their own varieties of LLINs. This was a great breakthrough, but the new nets were more expensive to manufacture than the preceding generation of simpler nets.

All of these developments -- new nets, new medicines, improved diagnostics, and a surging epidemic -- were crucial to developing a successful malaria control policy after the year 2000. Taken together, they motivated the case for increased donor aid to support the mass free-distribution of LLINs and free access to the new generation of artemisinin-based medicines and rapid diagnostic tools. Without financial support, poor people could not afford either the LLINs or the new medicines. Attempts to sell the nets at a discount, known as social marketing, had very little take up, since many poor families simply lacked any cash income at all. The prospect of achieving "mass action" protection through social marketing was very small. Moreover, impoverished households would often scrape together the needed money only to buy the cheaper but ineffective nets, rather than the more expensive but more effective LLINs.

Governments of low-income African countries needed donor support for the scale-up effort since their own domestic tax revenues, even when amply allocated to public health, could not cover the costs of a basic primary health system including scaled-up malaria control. The financial calculations, laid out by the Commission on Macroeconomics and Health, showed that an impoverished country with a GDP of around \$500 per capita, typical for a poor country in Africa, may be able to muster around \$15 per person per year out of domestic revenues for primary health (directing 15 percent of domestic revenues to health, as the Abuja target for health spending recommends), while the costs of a basic public health system (measured in 2014 dollars) would be around \$50-\$60 per person per year.

Prof. Easterly would have none of it. He took special and early aim at these recommendations in his 2006 book *The White Man's Burden*, claiming that free nets "are often diverted to the black market, become out of stock in health clinics, or wind up being used as fishing nets or wedding veils." After this specious claim, he then went on to write that "a study of a program to hand out free [malaria bed] nets in Zambia to people ... found that 70 percent of the recipients didn't use the nets." Yet this particular study, which was conducted by the American Red Cross and CORE, actually showed the program was a success, with high rates of net adoption. Prof. Easterly's claim misconstrued this and other evidence being developed by the ARC and others about the mass distribution of nets, which had found that the free distribution of malaria bed nets was achieving high coverage and adoption rates.

Prof. Easterly's arguments added to a highly visible narrative against the needed global action on malaria control. Yet despite this anti-aid narrative, a global turning point finally came in 2007-08. This turning point was helped by the early success of Kenya. Kenya's Minister of Health at the time, Charity Ngilu, led a government effort during 2006-7 to scale up mass bed net distribution based, in part, on the example of

100

115

120

125

130

135

140

free LLIN distribution in the Sauri Millennium Village. Kenya's policies led to a sharp drop of malaria nationwide.

Next, WHO swung its powerful weight behind the mass free distributions of bed nets throughout sub-Saharan Africa. Soon after, U.N. Secretary-General Ban Ki-moon established the mass free distribution of bed nets as policy for all U.N. agencies, and called on the world's governments and NGOs to support the scale-up effort. Ban's leadership tipped the global scales decisively. Close to 300 million bed nets were freely distributed from 2008-2010, with the Global Fund to Fight AIDS, Tuberculosis and Malaria and the U.S. President's Malaria Initiative program paying for a substantial share of the scale-up.

The evidence is overwhelming that malaria declined precipitously as a result of these bold measures. WHO's latest report finds a stunning 51 percent drop in malaria deaths of African children under the age of five between the years 2000 and 2012. These results are historic. Roughly a half-million children, if not more, are being saved each year that otherwise would have succumbed to malaria. Even more success is possible, but only if development aid continues to back the effective control of malaria. The Global Fund is struggling to fill its request for \$5 billion per year of funding, essential to supplement the health budgets of poor countries. Prof. Easterly's continued denunciations of aid, and his declarations that large-scale aid has failed, are injurious to the public support needed for the replenishment.

Across the board, the post-2000 improvements in public health in sub-Saharan Africa have been dramatic, strongly supported by scaled-up aid. Up to 10 million HIV-infected individuals are now receiving life-saving, anti-retroviral medicines thanks at least in part to aid programs. Tuberculosis (TB) patients are being treated and cured, with a global TB mortality rate drop of 45 percent since 1990, and an estimated 22 million people alive due to TB care and control from 1995-2012, thanks to Global Fund support, which provides the lion's share of donor financing to fight TB. With increased donor support, antenatal health visits, institutional deliveries, and access to emergency obstetrical care are all on the increase, contributing to a decline in sub-Saharan Africa's maternal mortality rate (the annual number of female deaths per 100,000 live births) from 850 in 1990 to 740 in 2000 to 500 in 2010. Deaths of children under five worldwide have declined from 12.6 million a year in 1990 and 10.8 million in 2000 to 6.5 million in 2012.

These successes demonstrate a key lesson: that well-designed aid programs with sound operating principles, including clear goals, metrics, milestones, deliverables, and financing streams, can make an enormous difference, and that such programs should be devised and applied on a large scale in order to benefit as many people as possible. Such quality design needs to be based on the details of best practices, such as the combination of medicines, bed nets, and diagnostics used in cutting-edge, community-based malaria control. The economics profession needs to do a much better job working with experts in other fields, such as public health, in order to design effective aid interventions that reflect the nitty-gritty of high-quality systems delivery. While Prof. Easterly begrudgingly admits that some health aid programs have worked, for him this contradiction seems to make no difference to his overarching claim that aid is doomed to fail, for reasons that are hard to explain. All the evidence and all the exceptions have not mattered to his rhetoric, or for that matter, to his harsh attacks on me personally.

The aid successes of the past decade have saved millions of lives, a worthy use of money (which has totaled just a tiny fraction of rich world income) on its own. Yet aid has delivered more than lives saved and improved. Various kinds of aid, including public health outlays, debt cancellation under the IMF and World Bank's Heavily Indebted Poor Countries initiative (providing debt relief and cancellation for the poorest countries), and other programmatic and budget support, have helped to put sub-Saharan Africa on a path of much higher economic growth and development. For the first time in decades, Africa's poverty rate has come down notably (from 58 percent in 1999 to 48.4 percent in 2010) and the region's economic

growth is now around 5 percent per year, making it the region with the second fastest growth (following Asia).

Of course, aid didn't cause this success by itself, as there are many factors in play. But aid has helped. Research distinguishing the types and timing of aid has shown that development aid raises economic growth, though the effects will differ across countries and depend on the quality of aid. The malaria example is one of the clearest and most dramatic examples, but across the continent, aid has helped with improvements in education, agriculture, sanitation, infrastructure, and more.

In *The White Man's Burden*, Prof. Easterly declared, "You just have to do whatever you discover works with your modest resources to make a difference in the lives of poor people." Prof. Easterly's emphasis on "modest resources" mischaracterizes our real global situation. We are living in a world of great wealth. We need not accept the fallacy perpetuated by the rich that global resources available are quite so "modest," when total aid to sub-Saharan Africa in 2012 amounted toroughly 0.1 percent of the GDP of the donor countries (around \$45 billion per year). We can and should mobilize more support. Just fractions of 1 percent of GDP of the rich countries can make a profound difference to ending extreme poverty throughout the world. Of course, we should also certainly agree to focus on what works, and take effective programs to large scale. The positive evidence since 2000 shows that well-designed aid has made a tremendous impact.

The issue is not "yes" or "no" to aid. Aid is needed, and can be highly successful. The issue is how to deliver high-quality aid to the world's poorest and most vulnerable people.

For Discussion:

145

150

155

- 1. Identify Moyo's arguments for why foreign aid is hurting Africa. Conversely, why does Sachs say that foreign aid should continue to flow into Africa? In your opinion, who is more convincing?
- 2. Based on your understanding of the impact of aid on Africa, what kinds of aid would benefit poor countries? To start you off, consider some novel strategies adopted by the UN's World Food Programme: https://www.wfp.org/our-work. In what way are these strategies more promising in delivering aid?

Related Cambridge/RI Essay Questions:

- 1. In times of economic hardship, should a country still be expected to provide financial or material aid to others? (Cambridge 2014)
- 2. 'The problem of global food shortage can never be resolved.' Do you agree? (RI Y6 Prelims 2013)
- 3. How effective are international efforts to ease the problem of global hunger? (Cambridge 2010)
- 4. To what extent can international aid be truly effective? (RI Y6 CT2 2010)
- 5. "Foreign aid is ineffective and wasteful." Is this true? (RI Y6 CT2 2009)
- 6. Is the elimination of global poverty a realistic aim? (Cambridge 2009)

Reading 8d: Globalisation, technology and inequality

EU5

Zia Qureshi | The Brookings Institution | 16 Feb 2018

The main enduring understanding for this reading is:

EU5: Another consequence [of globalisation] is that while globalisation has generated wealth, uneven distribution of both resources and growth has contributed to poverty and inequality.

This reading will help you to:

5

10

15

20

25

30

- Understand how globalisation and technology have led to the rise in inequality.
- Consider the potential of policy as a plausible solution.

We are living in a time of mounting societal discontent and political divisiveness—a "fractured world," as captured in the theme of the recent World Economic Forum meeting in Davos. In many countries, social disaffection with economic outcomes is up sharply, roiling the political landscape and stoking populist and nationalist sentiment. Brexit and the outcome of the 2016 United States presidential election are but the more dramatic examples of these socio-political dynamics that hold wider sway.

What explains the rising tide of socio-economic unhappiness? The world has not become less prosperous. It is true that the global financial crisis caused major setbacks, but economic growth has recovered. The economic pie is growing—although not as fast as before, as economic growth is being held down by a longer-term decline in productivity growth. The increasingly unequal sharing of the economic pie lies at the heart of the rising social discontent.

Income and wealth inequalities have risen practically in all major economies, and sharply in several of them. In the U.S., for example, the income share of the richest 1 percent has more than doubled since the early 1980s to around 22 percent, with the wealth share rising to almost 40 percent. Those with middle-class incomes have been squeezed and the typical worker has seen largely stagnant real wages. In the "land of opportunity," social mobility has been stalling. Even as economic growth gathered steam in 2017, economic disparities continued to mount. According to a report released on the eve of the Davos meeting, 4 out of 5 dollars of the increase in global wealth in 2017 accrued to the top 1 percent.

In the cauldron of political debate, much of the blame for the rise in inequality is heaped on globalization—often from both ends of the political spectrum. The popular backlash against globalization has been fed by a negative political crescendo. Another factor blamed is technological change—digitization, the rise of robots, artificial intelligence—that is seen to favor capital and higher-level skills at the expense of ordinary workers. More and more, we hear calls to throw sand in the wheels of technological change, reflecting an ascendant neo-Luddism.

Most dynamic economic change inevitably creates winners and losers. Globalization and technology are no exceptions. They are key forces that drive innovation, productivity, and economic growth. But they also have been important factors behind the rise in inequalities we have witnessed—with technological change playing a stronger role. The distributional consequences of these forces, however, are not pre-ordained. Outcomes that are more inclusive are certainly possible. Much depends on policies. Sadly, policies for the most part have not risen to the new challenges. Indeed, they have often exacerbated rather than ameliorated the outcomes.

Attempting to inhibit globalization or technological change would be the wrong response to the rising popular discontent with their distributional outcomes. Instead, policies must do better to ensure that the economic gains are more widely shared. This means improving the enabling environment for firms and workers—to broaden access to opportunities that come with globalization and technological change and

to enhance capabilities to adjust to the new challenges. Fresh, out-of-the box thinking is needed to bring policies in step with today's economic transformations.

Competition must be strengthened in industry and finance to check the growth of monopolistic structures and abuse of market power. Competition policies must be revamped for the digital age marked by the rise of winner-take-all technology giants. Technology policies must be reformed so that they promote innovation and wide diffusion rather than serve primarily to lock in incumbents' advantages as under the current patent systems.

Access to quality education and training must be greatly improved, including putting in place stronger and smarter programs for worker upskilling and reskilling and lifelong learning to respond to the shifting demand for skills. New models of public-private partnerships and technology-enabled solutions must be explored. Labor market policies and social protection systems must be adapted to the realities of a dynamic job market with more frequent shifts between jobs and more diverse work arrangements.

Governments must reorient expenditure priorities and find the fiscal space to restore public investment programs in infrastructure and research and development that have been allowed to run down. They must also review tax and transfer systems that have seen erosion of their redistributive role.

- Reforms are needed at the international level as well, so that rules of engagement between countries in trade and other areas are fair. But the dominant part of the agenda to make globalization work better and for all rests with policies at the national level. A few years ago, Richard Haass wrote a book entitled "Foreign Policy Begins at Home." In the same vein, globalization begins at home. Rather than decry globalization, politicians should exert more to put national policy houses in order.
- The political debate needs to shift from frenzied rhetoric to take up the cudgels against primal forces to a calmer and more serious focus on policies that matter. The aphorism "it's the economy, stupid" captured the political zeitgeist of the not too distant past. "It's the policies, stupid" would be an apt renewal of that exhortation for our time.

For Discussion:

40

45

- 1) According to the author, how have globalisation and technology led to income and wealth inequalities?
- 2) Do you agree that 'the dominant part of the agenda to make globalization work better and for all rests with policies at the national level'?
- 3) The author believes that policies that span different aspects such as education, national expenditure and tax structure, fair competition within industries, access to technological advancement need to be adjusted in our effort to address inequalities. To what extent is this acknowledged by key stakeholders in Singapore? Cite specific examples to support your stand.

Essay Questions:

1) 'Globalisation makes the world a better place.' To what extent is this true today? (RI Y6 CT1 2009)

Reading 9a: Immigrants are the Key to a Knowledge Economy

EU1

5

By Mark Zuckerberg (The Washington Post, 10 April 2013)

This reading will help you to understand:

- Why immigrants are part of America's future, especially in a knowledge-based economy
- Why the US needs comprehensive immigration reform
- 1 Earlier this year I started teaching a class on entrepreneurship at an after-school program in my community. The middle-school students put together business plans, made their products and even got an opportunity to sell them.
- One day I asked my students what they thought about going to college. One of my top aspiring entrepreneurs told me he wasn't sure that he'd be able to go to college because he's undocumented. His family is from Mexico, and they moved here when he was a baby. Many students in my community are in the same situation; they moved to the United States so early in their lives that they have no memories of living anywhere else.
- 3 These students are smart and hardworking, and they should be part of our future.
- This is, after all, the American story. My great-grandparents came through Ellis Island. My grandfathers were a mailman and a police officer. My parents are doctors. I started a company. None of this could have happened without a welcoming immigration policy, a great education system and the world's leading scientific community that created the Internet.
- Today's students should have the same opportunities but our current system blocks them. We have a strange immigration policy for a nation of immigrants. And it's a policy unfit for 15 today's world.
- The economy of the last century was primarily based on natural resources, industrial machines and manual labor. Many of these resources were zero-sum and controlled by companies. If someone else had an oil field, then you did not. There were only so many oil fields, and only so much wealth could be created from them.
- 7 Today's economy is very different. It is based primarily on knowledge and ideas resources 20 that are renewable and available to everyone. Unlike oil fields, someone else knowing something doesn't prevent you from knowing it, too. In fact, the more people who know something, the better educated and trained we all are, the more productive we become, and the better off everyone in our nation can be.
- This can change everything. In a knowledge economy, the most important resources are the talented people we educate and attract to our country. A knowledge economy can scale 25 further, create better jobs and provide a higher quality of living for everyone in our nation.
- 9 To lead the world in this new economy, we need the most talented and hardest-working people. We need to train and attract the best. We need those middle-school students to be tomorrow's leaders.
- 10 Given all this, why do we kick out the more than 40 percent of math and science graduate students who are not U.S. citizens after educating them? Why do we offer so few H-1B visas 30 for talented specialists that the supply runs out within days of becoming available each year, even though we know each of these jobs will create two or three more American jobs in

return? Why don't we let entrepreneurs move here when they have what it takes to start companies that will create even more jobs?

- 11 We need a new approach, including:
 - Comprehensive immigration reform that begins with effective border security, allows a path to citizenship and lets us attract the most talented and hardest-working people, no matter where they were born. Higher standards and accountability in schools, support for good teachers and a much greater focus on learning about science, technology, engineering and math. Investment in breakthrough discoveries in scientific research and assurance that the benefits of the inventions belong to the public and not just to the few.
 - 35

40

50

- 12 Changes like these won't happen on their own. That's why I am proud to announce FWD.us, a new organization founded by leaders of our nation's technology community to focus on these issues and advocate a bipartisan policy agenda to build the knowledge economy the United States needs to ensure more jobs, innovation and investment.
- These leaders, who reflect the breadth and depth of Silicon Valley's entrepreneurial culture, include Reid Hoffman, Eric Schmidt, Marissa Mayer, Drew Houston, Ron Conway, Chamath 45 Palihapitiya, Joe Green, Jim Breyer, Matt Cohler, John Doerr, Paul Graham, Mary Meeker, Max Levchin, Aditya Agarwal and Ruchi Sanghvi.
- As leaders of an industry that has benefited from this economic shift, we believe that we have a responsibility to work together to ensure that all members of our society gain from the rewards of the modern knowledge economy.
- We will work with members of Congress from both parties, the administration and state and local officials. We will use online and offline advocacy tools to build support for policy changes, and we will strongly support those willing to take the tough stands necessary to promote these policies in Washington.
- 16 Across America, creative, hardworking people in coffee shops, dorm rooms and garages are creating the next era of growth. Let's embrace our future as a knowledge economy and help them and all of us reach our full potential.

Post-Reading Discussion I:

- 1. How have immigrants been portrayed in the article above?
- 2. In what ways do the portrayals above (a) influence the political discourse on immigration and (b) shape national narratives of immigrants and immigration?
- 3. Why do businesses generally favour fewer immigration controls?
- 4. What are the economic costs of strict immigration policies?
- 5. Do potentially displaced native workers have a right not to face the increased competition for their jobs? Why or why not?

Further Reading:

We need to change the very language we use to talk about immigrants by Chitra Nagarajan: http://www.newstatesman.com/2013/08/we-need-change-very-language-we-use-talk-about-immigrants

Related Cambridge/RI Essay Questions:

1. Discuss the view that countries should always take in refugees. (RI Y6 CT1 2016)

- 2. Migration creates more problems than it provides solutions. Discuss. (RI Y6 CT2 2015)
- 3. 'Migration is a necessity, not an option.' What do you think? (RI Y5 Promo 2015)
- 4. To what extent should your society welcome immigrants? (RI Y5 Promo 2014)
- 5. Examine the impact that foreigners have on your society. (RI Y5 CT 2014)
- 6. 'Multiculturalism has failed utterly.' Is this an accurate assessment of societies today? (RI Y6 CT1 2014)
- 7. 'To what extent can a world that is increasingly multicultural be stable? (RI Y6 CT2 2012)
- 8. 'Man should love his neighbour as himself.' Is it possible to heed such advice in today's world? (RJC J2 CT1 2008)
- 9. 'In the modern world every country is obliged to concern itself with the affairs of other countries.' Is this true? (RJC J2 CT1 2004)
- 10. What are the desirable qualities of a global citizen? (RJC J2 CT1 2002)
- 11. How far would you agree that immigrants are necessary for a society to be successful today? (RJC J1 Promos 2002)

Reading 9b: Immigration fulfils the promise of globalisation



Pankaj Mishra | Bloomberg | 22 Oct 2013

The main enduring understanding for this reading is:

EU6: There are also social and cultural consequences; the renewed interest in cultural preservation, the rise of xenophobia are symptoms of the backlash against globalisation.

This reading will help you to understand that:

- While globalisation seems to promise free and open movement of people, this can lead to a push-back reaction that involves raising barriers to immigration.
- Even if immigration is successful, new citizens can faces serious socio-political backlash, blamed by incumbent citizens for a variety of problems.
- The persistence of such tensions suggests the need for a set of common principles governing the crossborder flow of people, in order to tap on the benefits of such movement.

Hundreds of destitute migrants from Africa and the Middle East died in two shipwrecks this month while attempting to reach the shores of Italy. In the meantime, wealthy Chinese, Indians, Russians and South Africans continue to glide serenely to their favoured European destinations as they flee their increasingly unstable countries.

Nations damaged by the euro crisis – Cyprus, Ireland, Latvia, Malta, Portugal, Spain – seem to have entered a race to sell the right to reside in Europe. Malta offers the cheapest path to eventual citizenship: just €260,000. The small conditions – no criminal record, for instance – are hardly onerous. Even UK Chancellor of the Exchequer George Osborne promised, while visiting Beijing last week with London mayor Boris Johnson, to expedite visas for China's businessmen and tourists, and to open all doors to Chinese students.

This eager courtship by Western politicians and businessmen of deep-pocketed and well-educated foreigners can mislead one into thinking that globalisation encourages free and open movements of peoples. In actuality, the shutters are coming down, and walls are going up, everywhere.

Fresh hurdles

Even Indian software engineers face fresh hurdles to entering the US today; they seem pampered compared with their fellow citizens toiling on construction sites in Dubai, who in turn enjoy privileges undreamt of by the Mexicans, described in a shocking new book, *The Beast: Riding the Rails and Dodging the Narcos on the Migrant Trail* by Oscar Martinez, who risk everything to get to the US.

- The open for business banner unfurled by Osborne and Johnson in Beijing seems no more than a fig leaf for hard-line immigration policies. The same week that they were in China, the British government introduced a new immigration Bill remarkable for its ill-concealed xenophobia. The Conservative Party is being pushed further to the right by the recent electoral successes of the stridently anti-immigrant UK Independence Party.
- In France, the extreme-right Front National led by Marine Le Pen is gaining ground among voters. A member of the Socialist government, French interior minister Manuel Valls, has affirmed the general rightward shift by openly calling for the expulsion of the country's Roma population and arguing for the extension of the French ban on Islamic headgear. Last week, stalwarts of the French Left cried out in anguish as Valls deported a Roma teenager while she was on a school trip.
- Greece confronts, in addition to a failing economy, the viciousness of the anti-immigrant party Golden Dawn. After an election campaign marked by competing promises to thwart immigration, Australia has a conservative prime minister determined to send boats carrying asylum seekers back to where they come from.
- Even countries that host the international diaspora of the rich are inwardly seething. This month in Hong Kong I was amazed to hear, in several different conversations, a word now commonly used by local residents to describe mainland Chinese in their midst: locusts. Singapore, the new magnet for the plutocracy of China, India, Indonesia, Malaysia and Philippines, may be set to replace Switzerland as the capital of wealth management with its deregulated banking system. But it will have to reckon with rising local protests against steeply growing inequality, rising prices and visceral loathing of flashy Chinese in Ferraris.
- Given the darkening anti-foreigner climate in Europe, the Chinese and Indian plutocrats furiously buying villas, palazzos, chateaus, haciendas and apartments in London's Mayfair cannot feel certain that their arrival won't provoke their rich neighbors to mutter, "There goes the neighborhood."

Unreasoned hostility

45

- When even itinerant individuals with ample skills and wealth provoke racial anxiety, less fortunate migrants cannot help but incite wholly unreasoned hostility. This politically volatile distrust of foreigners in high-income countries is another side of the problem of unregulated mobility I discussed in my last column. While still-developing nation-states such as India and China haemorrhage wealth and talent, politicians in advanced economies seem far from honestly accepting their need for migrants of all kinds, and the related imperative to fight blind prejudices and ill-informed notions about migration.
- One well-sourced analysis after another has disproved popular ideas about immigration as a further drain on public resources during a time of fiscal austerity. Foreign arrivals contribute about as much in tax revenue as they receive in benefits, according to a report in June from the Organization for Economic Cooperation and Development.
- The economic rationale for migration is further underscored by the changing profile of high-income countries: high wages; slowly growing, if not declining, populations; and shortages of domestic talent. Some of the walled-off countries are slowly seeing the light. South Korea, for instance, has started to open its doors to immigrants. On the other hand, Japan, with its severely restrictive immigration policies, continues to suffer conspicuously from a shortage of unskilled workers in the construction, medical, social welfare and other service sectors.
- Indeed, as the OECD report warns, countries that fail to understand the effects of immigration may end up crafting policies that make it harder for them to deal with demographic changes. Yet cynical domestic politicians, in the UK as well as in France, have stolen the initiative in defining the costs and benefits of migration.

Their opportunistic demagoguery relies upon a lack of enlightened global consensus about the subject. What defines globalisation today is the mobility of human beings as much as that of capital and goods. But there is no sustained attempt to draw up a global or regional framework of principles governing cross-border flows of people, even by institutions such as the World Trade Organization, which lays down the rules governing the international trade of goods and services, or the International Monetary Fund, which concerns itself with the stability of the international monetary system and global capital markets.

70 Globalisation paradox

65

75

80

85

90

At present, individual countries that receive (and send) migrants make policies in response to local needs and sentiments (xenophobia prominent among them). There is no multilateral process that subjects migration flows to global rules and standards. In his recent book The Globalisation Paradox: Democracy and the Future of the World Economy, the economist Dani Rodrik writes that leaders seriously committed to boosting incomes equitably around the world should focus single-mindedly on reforming the rules that govern labour mobility.

Rodrik proposes a temporary work visa scheme in rich countries that could generate \$360 billion annually for the world economy. Its potential benefits are greater than all the gains from removing tariffs and subsidies (what the negotiators at the Beckettian Doha Round of trade talks endlessly toil over), and would go directly to the poorest people on earth, skipping altogether the arduous and plainly inefficient process of trickle-down.

Rodrik is, of course, aware of potential objections and hurdles to his idea, and carefully pre-empts them with an additional set of suggested policies. Immigration, he also knows, lacks a large domestic political constituency. But, as he argues correctly, so did trade liberalization, which was pushed through by a combination of political leadership, lobbying by business groups and activist economists.

A global institutional framework for migration could regulate low-cost labour as well as the so-called talent elites while ensuring the rights of irregular migrants. It is simply astonishing the degree to which we have ignored the patterns of international migration, despite their deep links with human welfare and political stability everywhere. We urgently need a global set of rules for migration. Certainly, the incentives for it have never been clearer, as awful human tragedies occur off the coast of Europe, and right-wing nastiness spreads across the continent.

Pankaj Mishra is the author of *From the Ruins of Empire: The Revolt Against the West and the Remaking of Asia* and a Bloomberg View columnist.

For discussion - From the article:

- 1. What are the key factors driving the anti-immigrant sentiment?
- 2. What evidence does the author cite to challenge negative views of immigrants' alleged impacts?
- 3. What possible solutions does the author cite/propose to better manage & promote immigration?

Essay questions

- 'Migration should be encouraged in today's world.' How far do you agree? (RI Y6 CT1 2017)
- To what extent should the movement of people across borders be restricted in the modern world? (RI Y6 Prelim 2016)
- Migration creates more problems than it provides solutions. Discuss. (RI Y6 CT2 2015)
- Consider the importance of global trends in your society. (RI Y5 CT 2012)

Reading 10: Civil War Trends and the Changing Nature of Armed Conflict

EU7

The main enduring understanding for this reading is:

EU7: Additionally, there are geopolitical consequences: the nature of conflict has changed, in line with changing social, political, economic factors and technological advances.

This reading will give you a deeper insight into:

- Changing trends in armed conflict in the world today.
- Geopolitical, economic and technological reasons for the change in trends.
- The difficulties which international bodies face in addressing modern conflict.

United Nations University Centre for Policy Research

Occasional Paper 10 (Excerpt), March 2017

Since the turn of the millennium, the UN (along with other international actors) has struggled to bring lasting stability to a number of conflict situations, many of which have experienced repeated crises. This contrasts with the early and mid-1990s (Namibia, El Salvador, Guatemala, Mozambique, Cambodia, and Eastern Slavonia) where conflicts were "ripe for resolution," both locally and in terms of the larger geopolitical context, and took place in relatively small territories where a few thousand peacekeepers (or a few hundred human rights observers) could tip the balance in a positive direction. One indicator that international actors are finding it more difficult to establish stability is that, compared to the 1990s, UN peace operations now tend to be deployed for much longer – with more uncertain outcomes.

Part of the explanation for this may be that the nature of conflict is changing, becoming more intractable and less conducive to political settlement. Three developments significantly complicate the endeavours of international actors in peacemaking, peacekeeping, and peace-building:

- 1. Organised crime has emerged as a major stress factor that exacerbates state fragility, undermines state legitimacy, and makes conflict more intractable and messy;
- 2. The increasing "internationalisation" of civil war (i.e. increase in military involvement of external actors in civil wars) renders conflicts more difficult to solve; and
- 3. The growing presence of jihadist groups in modern conflict settings constitutes a significant challenge to peacemaking and peacekeeping as their maximalist goals are difficult to meet through negotiation.

20 The Impact of Organised Crime

5

15

25

One key change in the modern conflict environment is the impact of transnational organised crime (the opportunities for which have grown along with globalisation) on conflict dynamics and state legitimacy.

During the Cold War, many civil wars were fuelled by superpower support to rebel forces in "third world" proxy conflicts. As external state support began to dry up, armed non-state groups increasingly engaged in the shadow economy, benefiting from a growth of transnational illicit markets, a by-product of the growing ease with which people, goods, and money could cross borders. This trend has continued today, and the growing ability of armed groups and other non-state actors to tap into global illicit markets and their deepening involvement in criminal activities are significantly altering the political economy of violent conflicts and heavily affecting conflict dynamics in a number of settings.

First, involvement in conflict economies may lower the incentives for rebel groups to enter into ceasefires or peace agreements. Research has shown that civil wars in which a major rebel group has access to funds from contraband tend to last significantly longer than others. The role that the exploitation of "conflict"

resources" (such as diamonds, minerals, timber, coltan, poppy or coca) has played in fuelling and prolonging civil wars has grown through the 1990s as evidenced in Angola, Sierra Leone, Liberia, the DRC, the CAR, Afghanistan, and Colombia. The phenomenon now goes well beyond conflict resources and the opportunities for making money from trafficking and other illicit activities have significantly broadened, as can be seen in Syria, Libya and the Sahel.

Second, the growth of illicit markets has lowered entry barriers to the market of organised violence. The means to organise violence have become more readily accessible through transnational arms supply lines, communications technologies (like Facebook and Twitter) and illicit finance streams. It is easier than ever before for violent actors to get their hands on guns, cash, and even recruits.

In addition to changing the political economy of conflict, organised crime has a particularly nefarious effect on governance, as it corrupts state and security institutions and empowers non-state actors to emerge as rivals to the state in the provision of protection services. In Afghanistan and Colombia for example, the involvement of armed groups in labour-intensive illicit economies such as coca and opium poppy production has provided them with considerable social and political capital among local communities who rely on these economies for their livelihoods. States in periods of transition from war to peace, or from one regime to another, are particularly vulnerable to organised crime as during such periods powerful informal wartime elites (relying on ill-gotten wealth, wartime networks and coercion) tend to extend their influence over formal state institutions. The challenge to state legitimacy is exacerbated when political and economic liberalisation processes that often follow war are seen to further empower organised crime elements and when demobilised combatants gravitate toward gangs.

Also important is the growing attraction of cities in fragile and conflict-affected states for transnational criminal groups. Cities such as Kinshasa, Mogadishu, Juba, Kabul, and Port au Prince are growing at unprecedented and unmanageable rates for what are already fragile settings. This fragility combined with the connectedness offered by modern communication systems and access to large transportation hubs have enabled illicit markets and groups to thrive in conflict-and-violence-affected cities. These dynamics can severely destabilise post-conflict countries, undermine state-building efforts, and even throw countries back into a spiral of violence as was visible in Haiti and Guatemala.

60 The Internationalization of Civil War

35

40

45

50

55

80

Another trend in recent years that makes conflict more intractable is the significant rise of "internationalised civil wars," i.e. internal conflicts in which other states intervene militarily on one or both sides. In 1991, 4% of conflicts were internationalised according to this definition; by 2015, that number had multiplied ten-fold to 40%.

This is a concerning trend because research shows that when external interventions in domestic conflicts do not lead to a rapid military victory, they are likely to make internal conflicts deadlier and longer. The DRC is a case in point, where the mining and military interests of neighbouring countries like Rwanda and Uganda have contributed to extending the Congolese conflict over many years, with both countries shifting their support to different parties over time in accordance with their own objectives. Intervening countries act almost as additional independent parties to the conflict, which poses extra challenges to peace negotiations. Syria is another example, where the military involvement of multiple external actors complicates prospects for a negotiated solution to the conflict. The involvement of states with strong militaries, such as the US or Russia, in internal conflicts is especially likely to cause more fatalities.

Peace operations in the face of Jihadist violence

A significant part of the changing nature of conflict is the growing influence of jihadist groups in modern conflict settings. Since 2010, there has been a dramatic rise in the number of Salafi-jihadist fighters. Accompanying this trend has been a dramatic rise in the number of fatalities in organised violence involving ISIS, Al Qaeda and their affiliates.

In recent years, ISIS in particular has expended its reach, with the number of conflicts involving the group and its affiliates having quadrupled from 2014 to 2015. In 2015, most of ISIS's one-sided violence against

civilians took place in three conflict-affected countries: Iraq, Syria and Nigeria. The fact that the majority of such violence occurs in conflict settings suggests that, as the International Crisis Group has noted, the growing reach of jihadist groups in recent years is "more a product of instability than its primary driver."

The fact that many of today's civil war environments feature jihadist insurgencies complicates peacemaking because these groups tend to pursue maximalist demands that are difficult to meet or to incorporate into political settlements based on human rights and democratic governance.

The rise in jihadist groups also poses a challenge to the UN and other international peacebuilding actors, as the former often target the latter. Targeting often prompts international actors to adjust their postures accordingly. In particular, an increasingly widespread "bunker up and hunker down" mentality among UN peace operations constrains the ability of both uniformed personnel and civilian staff to engage with the local population, win hearts and minds, mediate local disputes, and gather information – work critical to help with the implementation of peace agreements. Even missions in countries with comparatively low threat levels often feel compelled to adopt security measures that fuel a public image of inaccessibility.

Reflection Question

The article raises three key developments that explain how conflict has changed in the modern world. Which development do you think is the most challenging for the world to deal with, and why?

For discussion:

85

90

- 1) 'Countries experiencing conflict should be left to sort out their own problems.' How far do you agree? (Cambridge 2016)
- 2) 'The use of violence inevitably leads to more problems.' What is your view? (RI Y6 CT1 2016)
- 3) Examine the extent to which one country's intervention in another country's problems is justified. (RI Y6 Prelim 2016)
- 4) Can the trade in weapons ever be justified? (RI Y6 CT2 2015)
- 5) 'International cooperation has not solved the global problems of today.' Do you agree? (RI Y6 CT2 2014)

Reading 11: Peer into the post-apocalytic future of anti-microbial resistance

EU2 & EU8

Edited from an article by Michael Osterholm and Mark Olshaker | 18 March 2017 | Fortune Magazine

The main enduring understanding in this reading:

EU2: The particular circumstances of different countries and individuals have a significant bearing on whether they are on the receiving end of the benefits or detriments of globalisation.

EU8: Moreover, there are consequences for health security: perennial health threats are exacerbated through transnational networks of people and goods.

This reading will give you a deeper insight into:

5

10

35

- The growing danger that antibiotic resistant microbes pose to human health worldwide
- The disproportionate risk that developing nations face with regards to this threat
- How industrial practices as well as a lack of regulation in global medicine and food production networks that have contributed to this threat

The origin story of antibiotics is well known, almost mythic, and antibiotics, along with the other basic public health measures, have had a dramatic impact on the quality and longevity of our modern life. When ordinary people called penicillin and sulfa drugs miraculous, they were not exaggerating. These discoveries ushered in the age of antibiotics, and medical science assumed a lifesaving capability previously unknown.

Note that we use the word discoveries rather than inventions. Antibiotics were around many millions of years before we were. Since the beginning of time, microbes have been competing with other microbes for nutrients and a place to call home. Under this evolutionary stress, beneficial mutations occurred in the "lucky" and successful ones that resulted in the production of chemicals—antibiotics—to inhibit other species of microbes from thriving and reproducing, while not compromising their own survival. Antibiotics are, in fact, a natural resource—or perhaps more accurately, a natural phenomenon—that can be cherished or squandered like any other gift of nature, such as clean and adequate supplies of water and clean air.

- Equally natural is the phenomenon of antibiotic resistance. Microbes move in the direction of resistance in order to survive. And that movement, increasingly, threatens our survival.
- With each passing year, we lose a percentage of our antibiotic firepower. In a very real sense, we confront the possibility of revisiting the Dark Age where many infections we now consider routine could cause severe illness, when pneumonia or a stomach bug could be a death sentence, when a leading cause of mortality in the United States was tuberculosis.
- The Review on Antimicrobial Resistance (AMR) determined that, left unchecked, in the next 35 years antimicrobial resistance could kill 300,000,000 people worldwide and stunt global economic output by \$100 trillion. There are no other diseases we currently know of except pandemic influenza that could make that claim. In fact, if the current trend is not altered, antimicrobial resistance could become the world's single greatest killer, surpassing heart disease or cancer.
- In some parts of the United States, about 40 percent of the strains of Streptococcus pneumonia, which the legendary nineteenth and early twentieth century physician Sir William Osler called "the captain of the men of death," are now resistant to penicillin.
 - As it is, according to the CDC, each year in the United States at least 2,000,000 people become infected with antibiotic-resistant bacteria and at least 23,000 people die as a direct result of these infections. More people die each year in this country from MRSA (methicillin-resistant Staphylococcus aureus, often picked up in hospitals) than from AIDS.

If we can't—or don't—stop the march of resistance and come out into the sunlight, what will a post-antibiotic era look like? What will it actually mean to return to the darkness of the cave?

Without effective and nontoxic antibiotics to control infection, any surgery becomes inherently dangerous, so all but the most critical, lifesaving procedures therefore would be complex risk-benefit decisions. You'd have a hard time doing open-heart surgery, organ transplants, or joint replacements, and there would be no more in vitro fertilization. Caesarian delivery would be far more risky. Cancer chemotherapy would take a giant step backwards, as would neonatal and regular intensive care. For that matter, no one would go into a hospital unless they absolutely had to because of all the germs on floors and other surfaces and floating around in the air. Rheumatic fever would have lifelong consequences. TB sanitaria could be back in business. You could just about do a post-apocalyptic sci-fi movie on the subject.

To understand why antibiotic resistance is rapidly increasing and what we need to do to avert this bleak future and reduce its impact, we have to understand the Big Picture of how it happens, where it happens, and how it's driven by use in humans and animals.

Human Use

40

45

70

- Think of an American couple, both of who work fulltime. One day, their 4-year-old son wakes up crying with an earache. Either mom or dad takes the child to the pediatrician, who has probably seen a raft of these earaches lately and is pretty sure it's a viral infection. There is no effective antiviral drug available to treat the ear infection. Using an antibiotic in this situation only exposes other bacteria that the child may be carrying to the drug and increases the likelihood that an antibiotic resistant strain of bacteria will win the evolutionary lottery. But the parent knows that unless the child has been given a prescription for something, the daycare center isn't going to take him and neither partner can take off from work. It doesn't seem like a big deal to write an antibiotic prescription to solve this couple's dilemma, even if the odds the antibiotic is really called for are minute.
- While the majority of people understand that antibiotics are overprescribed and therefore subject to mounting resistance, they think the resistance applies to them, rather than the microbes. They believe that if they take too many antibiotics whatever that unknown number might be—they will become resistant to the agents, so if they are promoting a risk factor, it is only for themselves rather than for the entire community.
 - Doctors, of course, understand the real risk. Are they culpable to the charge of over- and inappropriately prescribing antibiotics? In too many cases, the answer is Yes.
- Why do doctors overprescribe? Is it about covering their backsides in this litigious society? Is it a lack of awareness of the problem? According to Brad Spellberg, "The majority of the problem really revolves around fear. It's not any more complicated than that. It's brain stem level, sub-telencephalonic, not-conscious-thought fear of being wrong. Because we don't know what our patients have when they're first in front of us. We really cannot distinguish viral from bacterial infections. We just can't."
- Spellberg cited a case, one he heard at an infectious disease conference he attended. A 25-year-old woman came into the urgent care facility of a prominent health care network complaining of fever, sore throat, headache, runny nose and malaise. These are the symptoms of a classic viral syndrome and the facility followed exactly the proper procedure. They didn't prescribe an antibiotic, but instead told her to go home, rest, keep herself hydrated, maybe have some chicken soup, and they would call her in three days to make sure she was all right.

She came back a week later in septic shock and died soon after.

"It turns out she had Lemierre's disease," says Spellberg. "It clotted her jugular vein from a bacterial infection that spread from her throat to her bloodstream. This is about a one-in-10,000 event; it's pretty darn rare. But it's a complication of an antecedent viral infection, and it's a known complication. So this

patient, ironically, would have benefitted from receiving inappropriate antibiotics. How many times do you think doctors need to have those things happen before they start giving antibiotics to every person who walks in the door?"

As much difficulty as we're having controlling antibiotic resistance in the First World, for the rest, we believe the situation to be a whole lot worse.

In many of these countries, antibiotics are sold right over the counter just like aspirin and nasal spray; you don't even need a doctor's prescription. While we in the public health community would certainly like to see a complete cessation of antibiotic use without a prescription, how do we tell sick people in developing countries that they first have to see a doctor, when there may be no more than one or two physicians for thousands of individuals, and even if they could find one, they couldn't afford the visit in the first place? Taking an action in a vacuum, such as banning over-the-counter sales without improving infrastructure, simply isn't viable.

We also have to understand the inordinate burden antibiotic resistance places on the world's poor. Current effective antibiotics now out of patent may cost only pennies a dose. When those are no longer useful, new compounds will cost many dollars a dose – far more than the poor can afford.

Many of the antibiotic compounds in the developing world are produced in loosely or unregulated manufacturing facilities, where there is no way to gauge quality control. And millions of poor people are living in tightly packed urban slums with inadequate hygiene and sanitary conditions, which generate both more disease and more opportunity for microbes to share resistance characteristics with each other.

Animal use—for food and pets

95

100

105

110

115

120

125

140

145

All of the world's use of antibiotics for humans is a relatively small percentage of total use. The US, Canada and Europe use about 30 percent of our antibiotics on humans. The rest we use on animals—specifically, animals we kill for food or companion animals and pets.

We produce our food animals in very large numbers and raise them densely packed together, whether we're talking about chicken and turkey operations, cattle and swine feedlots, or industrial fish farms. While these animals are less likely to catch infectious diseases when large production operations use high levels of biosecurity—the practice of limiting the ways that disease-causing germs can contact the animals—when these germs do get introduced their spread is rapid and extensive. So we use antibiotics to treat the resulting infections. But we also use them to prevent infections in the first place, or to control them by dosing healthy animals so they don't catch anything from the sick ones. And then we use them to enhance growth.

For decades we have given food-production animals repeated doses of certain antibiotics to make them grow bigger and fatter, producing more meat per animal. This practice is known as growth promotion. The FDA has implemented a voluntary plan with the agriculture industry to phase out the use of certain antibiotics for growth promotion. The European Union banned this use in 1969, though they still use antibiotics for infection prophylaxis, control, and treatment. The AMR found mounting evidence that the use of antibiotics for growth promotion may only provide very modest benefits to farmers in the high-income counties, usually less than 5 percent additional growth.

How does use of this affect us? The AMR team reviewed 280 published, peer-reviewed research articles that address the use of antibiotics in food production. Of these, 72 percent found evidence of a link between antibiotic use in animals and antibiotic resistance in humans. Only 5 percent, found no link between antibiotic use in animals and human infections.

Certain enlightened nations like Sweden, Denmark, and the Netherlands have limited agricultural use and set up comprehensive surveillance systems to determine the rates of antibiotic resistance in human and animal disease-causing germs. Jaap Waganaar, Professor of Clinical Infectiology at Utrecht University, points out that while the Netherlands has traditionally had the lowest rate of antibiotic use for humans in

the European Union, as a major agricultural exporter, it was the highest on the animal side. To combat this, the health ministry set prospective standards to be met year by year, mandating full and transparent reporting by the industry. Antibiotics for animal use must be prescribed by certified veterinarians. And for the most powerful antimicrobial agents, there must be confirmation that there is no reasonable alternative to their use.

Most other nations have not attempted to institute such progressive practices. As the developing world has adopted our "meat-centric" diet, they have also adopted our agribusiness formula for producing that meat, making heavy use of antibiotics for animal growth.

We see another frightening example of the mess we're in China, with the use of colistin, an absolute last-ditch antibiotic for bacteria that react to nothing else. It was isolated in Japan in 1949 and then developed in the 1950s, but not used unless absolutely necessary because of potential kidney damage. They don't use it for people in China, but are using it in agriculture—thousands of tons a year. Likewise, in Vietnam it is only approved for animal use, but physicians obtain it from veterinarians for their human patients.

Recently, colistin-resistant E. coli, made itself know in the United States—in the urine of a 49-year-old woman in Pennsylvania. When an article documenting this unhappy development appeared shortly after in a journal of the American Society for Microbiology, CDC's Tom Frieden said, "It basically shows us that the end of the road isn't very far away for antibiotics—that we may be in a situation where we have patients in our intensive-care units, or patients getting urinary tract infections for which we do not have antibiotics."

Many of the largest chicken-growing concerns in India, including ones that supply meat for the nation's McDonald's and KFC outlets, use one of several antibiotic cocktails that combine colistin with such other vital antibiotics as ciprofloxacin (Cipro), levofloxacin, neomycin and doxycycline. According to an article by Ms. Pearson and Ganesh Nagarajan, "Interviews with farmers indicated that the drugs, permitted for veterinary use in India, were sometimes viewed as vitamins and feed supplements, and were used to stave off disease—a practice linked to the emergence of antibiotic-resistant bacteria."

"The combination of colistin and ciprofloxacin is just stupidity on a scale that defines all imagination," commented Timothy Walsh, Professor of Medical Microbiology at Cardiff University in Wales.

What are the implications of all of this? The end result could very well be untreatable bacterial infections going directly into the world food supply. This would be the ultimate Frankenstein scenario.

Excerpted from Deadliest Enemy: Our War Against Killer Germs, Copyright © 2017 by Michael T. Osterholm and Mark Olshaker. Used with permission of Little, Brown and Company, New York. All rights reserved.

For discussion:

150

155

160

165

175

180

- 1. In what ways does globalisation contribute to the spread of antibiotic resistant illnesses?
- 2. To what extent do the habits of medical practitioners and consumers in general fuel this problem?
- 3. What are some other health threats that have a potential to become a serious global threat, now more than ever? Why might this be so?

Essay questions:

- 1. 'Disease is not just an individual concern, but a global one.' What is your view? (Cambridge 2002)
- 2. 'Disease is the greatest threat facing mankind today.' To what extent do you agree with this statement? (RI Y6 Prelim 2015)
- 3. 'The global health threat is the most serious problem facing the world today.' Do you agree? (RJC J2 Prelims 2008)